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RESEARCH PROCEEDINGS SERIES

Health Services Research in Puerto Rico

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Center for Health Services Research

National Center for Health Services Research

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Abstract

The United States and Puerto Rico are struggling to improve their ability to provide health care to their populations—equitably, efficiently, and effectively. Health services researchers in both areas are faced with the task of devising strategies to address issues of mutual concern. This conference focused on the development of an agenda for health services research responsive to the concerns of those involved in various aspects of health care delivery in Puerto Rico.

The conference was attended by health services policymakers, providers, administrators, and researchers from Puerto Rico and the United States. Participants discussed: (1) health services policy issues in Puerto Rico and how research might contribute to their resolution; (2) various strategies for organizing and conducting health services research; (3) the state of health services research in Puerto Rico; (4) a proposed approach to health services research in the Commonwealth; and (5) a proposed agenda for health services research in Puerto Rico with attention to its feasibility and its utility to various interested parties.

RESEARCH PROCEEDINGS SERIES

Health Services Research in Puerto Rico

Proceedings of the conference
held March 29 - April 1, 1977,
at Fajardo, Puerto Rico,
conducted by the Faculty
of Biosocial Sciences
and the Graduate School
of Public Health,
University of Puerto Rico

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Foreword

The National Center for Health Services Research (NCHSR) is the principal source of support in the United States for general research on problems related to the organization, financing, and delivery of health care services. Since its establishment, NCHSR has made a concerted effort to assure that its resources are allocated to research activities that are of potentially high social utility. Experience has shown that the appropriateness and responsiveness of the research enterprise can be materially enhanced by incorporating the concerns of policymakers, consumers, providers, and program administrators.

Because there is a great deal to be learned from the experience of the health care delivery system in Puerto Rico, NCHSR welcomed the opportunity to provide support to the Medical Sciences Campus, University of Puerto Rico, to design and conduct a conference to foster the development of health services research in the Commonwealth. The purpose of the conference was to lay the foundation for the development of an agenda in health services research which would guide an assessment of Puerto Rico's experience in terms of its implications for the future, and which would be responsive to the needs and concerns of our colleagues who are involved in various facets of Puerto Rico's health care system. Conference participants were drawn from the Puerto Rican and mainland research communities, as well as from the public and private sectors of the Commonwealth's health care delivery system.

The opportunity for substantive discussions among those who would do health services research in Puerto Rico, and those who would apply its findings in operational settings, will prove to be most valuable and productive. We look forward to the continued development of health services research in Puerto Rico and to equally productive collaborative efforts in the future.

Gerald Rosenthal, Ph.D.
Director

March 1978

Acknowledgements

The idea for this Conference arose in the office of Dr. Gerald Rosenthal, Director of the National Center for Health Services Research. The notion was pursued with perspicacity and dilligence by Dr. Joel Kavet, Senior Research Advisor to NCHSR on leave from Harvard Medical School. The University of Puerto Rico was invited to develop a proposal for a Conference on Health Services Research in Puerto Rico. This task was assigned by the Chancellor of the Medical Sciences Campus, Dr. Jorge Fernández, to the Dean of the Faculty of Biosocial Sciences and Graduate School of Public Health, Dr. José Manuel Saldanã. Under Dr. Saldanã's direction a proposal for the Conference was drawn up with the technical assistance of Mary Bird from the Medical Sciences Campus contract office. The design and development of the entire undertaking benefitted greatly from the able contribution and insightfu' guidance provided by Dr. Jack Elinson of Columbia University.

After NCHSR review, a revised proposal was accepted and a Steering Committee was appointed composed of faculty members from the Faculty of Biosocial Sciences and Graduate School of Public Health and representatives of government agencies. Committee members were:

Mrs. Edmee Doble,
Planning Board
Commonwealth of Puerto Rico;

Mr. Práxedes Norat,
Department of Health
Commonwealth of Puerto Rico;

Dr. Angel Pacheco,
Department of Drug Addiction
Commonwealth of Puerto Rico;

Mrs. Carmen Funentes,
Department of Social Services
Commonwealth of Puerto Rico;

Dr. José J. Villamil,
Graduate School of Planning
University of Puerto Rico

Dr. Luis A. López,
Graduate School of Public Health
Medical Sciences Campus
University of Puerto Rico; and

Dr. Guillermo Arbona,
Graduate School of Public Health
Medical Sciences Campus
University of Puerto Rico.

This Steering Committee held six meetings that were primarily devoted to the planning of conference activities and a seventh one to evaluate achievement. Dr. Saldaña recruited a capable conference coordinator, Mrs. Olga Sáez, who proceeded to arrange for every last detail of the Conference with efficiency and equanimity. The Conference was conducted bilingually with participants speaking in either Spanish or English. Simultaneous translation services were provided and bilingual tape recordings were made.

All formal papers that were presented at the Conference were available to all presenters and formal discussants before the actual Conference. The open discussions following the presentations were recorded and ably summarized by Ruth Martínez, a member of the Faculty of Biosocial Sciences at the Puerto Rico School of Public Health and by Carmen Noemí Vélez, formerly of the University of Puerto Rico School of Public Health and currently a doctoral candidate in Sociomedical Sciences at Columbia University.

Ably assisting Ms. Sáez was Carlos Rodríguez who handled the Conference logistics with the Hotel El Conquistador. Conference tapes were transcribed by Sol Delina Rivera. Final manuscript typing was done mostly by María Colón.

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Executive Summary

Conference on Health Services Research in Puerto Rico

From time to time over the past half century the special character of the Puerto Rican health system has attracted the attention of health service researchers. Most Puerto Ricans during this period have gotten medical care in government-owned and government-operated health centers and hospitals. The majority of the three million Puerto Ricans still do, especially the less affluent.

The Commonwealth of Puerto Rico, although associated with the United States where private medical care is dominant, provides more of its people with public medical and hospital care than with private care. Widely separated in time, professional interest in this unusual pattern of health care delivery has been reflected in the work of such notable health service researchers as Mountin, Pennell and Flook (1), and Trussell and Arbona (2).

The United States and Puerto Rico are struggling to improve their ability to provide health care to their populations—equitably, efficiently, and effectively. Health services researchers in both areas are devising strategies to tackle problems of mutual concern and applicability. To further this joint effort the National Center for Health Services Research asked the Faculty of Biosocial Sciences and Graduate School of Public Health of the Medical Sciences Campus of the University of Puerto Rico to organize a conference to discuss the development of an agenda for health services research for Puerto Rico. Some of the most experienced and prominent health services researchers were invited to present their ideas as they might enlighten and affect policy.

The Conference was attended by leading health policy makers in Puerto Rico as well as by health agency representatives in the Federal Government. Among the former were: the Secretary of Health of the Commonwealth of Puerto Rico; the President of the Puerto Rico Medical Association; the Chancellor of the Medical Sciences Campus of the University of Puerto Rico; the Executive Director of the Puerto Rican Health Systems Agency (Desarollo de Rescursos de Salud, Inc.); representatives of the Puerto Rican Planning Board and the Department of Social Services; the Director of the San Juan Municipal Health Services; and the Dean of the Faculty of Biosocial Sciences and Graduate School of Public Health of the Medical Sciences Campus of the University of Puerto Rico. Federal agencies represented included: the National Center for Health Services Research; the Bureau of Health Manpower; Region II of the Department of Health, Education, and Welfare; and the Office of International Health of the Public Health Service. Conference participants included health services research faculty from the University of Wisconsin, Harvard University, the University of California at Los Angeles, the Johns Hopkins University, the University of North Carolina, and Columbia University. Faculty participants from the University of Puerto Rico included not only faculty of the Graduate School of Public Health (behavioral science, health education, epidemiology, nutrition, community psychiatry, biostatistics, and health administration), but also faculty from the Graduate School of Planning and the Graduate School of Psychology. The Milbank Memorial Fund and the Robert Wood Johnson Foundation, private foundations with an interest in health services research, were also represented. Another private group represented was Health and Social Service, Inc.

The specific purposes of the Conference were to:

1. Lay out the *health services policy issues* in Puerto Rico as seen by leading figures in Puerto Rico; and to suggest how health services research could address these policy issues.
2. To review various strategies for organizing and conducting health services research that have been employed in some of the leading centers for health services research in the United States.
3. To appraise the state of health services research in Puerto Rico.
4. To suggest a strategy for health services research in Puerto Rico and to obtain reactions to the suggested strategy from potential official users, e.g., the Department of Health and the Health Systems Agency for Puerto Rico.

5. To propose an agenda for health services research in Puerto Rico and to discuss the utility and feasibility of such an agenda from the point of view of public and private health interests, the relevant educational establishment, and the Federal Government.

Accordingly, the formal sessions of the Conference were organized to achieve these purposes.

The first session was devoted to an elucidation of the health services policy issues in Puerto Rico. A presentation on this subject was made by Dr. Jorge J. Fernández Pabón, Chancellor, Medical Sciences Campus, University of Puerto Rico. Dr. Fernández set forth two criteria for the setting of research priorities: (1) that they deal with pertinent problems in Puerto Rico; and (2) that the Puerto Rican setting be particularly suitable. Dr. Fernández viewed the Conference as "a prelude to the establishment of a Health Services Research Institute". He then provided an historical sketch of the development of Puerto Rico, followed by an identification and discussion of fundamental and immediate issues. He argued that "one of the most important health policy issues in Puerto Rico is the conflict between our (Puerto Rican) system of health care and the imposition of Federal legislation on account of the disharmony in philosophical perspectives: historically, culturally, and economically." He noted that the Mountin report in 1937* "essentially called for more active insular" (as contrasted with municipal or local) "government involvement, regionalization of hospital care, and urgent application of public health measures to curtail preventable and contagious diseases which were (then) the main cause of death and illness on the Island." The Mountin report was used by Puerto Rican leaders "who brought about . . . . a revolution in health care and . . . . one of the most successful stories of progress in the level of health of a people." With World War II, and subsequently, three factors—economic growth and the resulting rise in expectations, medical education following the American model, and the availability of federal funds—became the principal causes of controversy in the health services system in Puerto Rico. The most important health policy issues in Puerto Rico arising out of these developments are:

- the conflict between the Puerto Rican system of health care and federal legislation;
- the capability of the Puerto Rican system of health care in meeting the increasing demand for direct medical care;
- inadequate services for the poor because of inequitable distribution of resources;
- inadequate knowledge with respect to the relative efficiency of both the public and the private sectors in delivering health services;
- the participation of consumers in a highly structured community flavored with paternalism and monolithic government of public services;
- growing costs and inequities in the availability and quality of health services;
- misleading of public opinion in the complex and confused issues of health policy and the offering of simplistic solutions;
- limitation in financial resources complicating priority settings;
- clash between the public and private sectors;
- social injustice accruing from differential resources available to each sector; and
- Federal legislation which supports the more wasteful private sector at the expense of the public sector.

Dr. David Mechanic related policy issues to health services research priorities in Puerto Rico. He first outlined common problems facing most countries in improving health services: deciding how much of the national wealth should be expended for medical care and how this expenditure should be divided among preventive programs, acute care and services for chronic conditions; coping with "inevitable fragmentation" of services and developing a balance among types of services; understanding the needs of the entire population through epidemiologic intelligence and not only of those who use particular services; since "most demands on the medical care are relatively simple, rethinking the function and status of primary care with an emphasis on the needs of defined populations; and the monitoring and control of utilization, cost and quality while avoiding burdensome and expensive bureaucratic procedures."

Dr. Mechanic highlighted the favorable position of Puerto Rico relative to other countries in that it has "a major commitment for the delivery of services through the public sector and a tradition of public organization to meet medical care needs." The basic issues for health services research are how to strengthen these commitments effectively.

Realistically, funds for health services research in Puerto Rico are likely to be limited and only very few of the possibilities can be studied in depth. Criteria developed by the National Center for Health Services Research are useful guidelines for establishing priorities, if not applied too rigidly. Among these criteria are: the likely utility of the research and the availability of qualified researchers; and the general assumption that problems which affect the allocation of substantial resources, which affect a large segment of the population, and which command growing legislative interest would seem to be obvious candidates. Despite the apparent utility of some research, or inutility, Dr. Mechanic cautioned that ". . . what

*Mountin, J.W., Pennell, E.H., and Flook, E. "Illness and Medical Care in Puerto Rico," *Public Health Bulletin*, No. 237, June 1937, U.S. Government Printing Office, Washington, D.C.

may seem irrelevant to policy at some earlier point may turn out to be crucial a few years later." The criterion of relevance, if applied too rigidly, may "... support efforts that in the long run may be less valuable than investigations that take a broad view and deal with more generic issues ..."; "... policymakers ... often (demand) ... a quick answer responsive to what they perceive as the needs of the moment (while) many of the more fundamental issues persist, and the same problems ... recur year after year. Thus, it is frequently productive to take a long-range view and to provide ample support for studies that deal with tougher but more embracing issues." "The health services researcher who works on such problems appreciates that in all likelihood there will be no immediate direct application of his findings because of social or political barriers, but in the longer run he is contributing to a climate of understanding that will lead future policymakers to think about the problem somewhat differently." "... What is possible *does* change ..."

Dr. Mechanic felt that since many of the health services traditions in Puerto Rico were different from those on the mainland, as Dr. Fernández had emphasized, that Puerto Rico should address not only what seemed practical at the moment, but should develop good data on the nature of health service problems and the likely effects of possible Federal legislation in relation to Puerto Rico. Dr. Mechanic outlined both short-term and long-range issues that might be addressed in Puerto Rico. Short-term issues included: better definition of the range of services necessary at the health center level; acceptability of nurse practitioners and their cost effectiveness; use of beds, in contrast to other facilities, for meeting social-medical needs; and operationalizing simple and useful data systems at the primary care level. At the practical level Dr. Mechanic felt that particular projects chosen should reflect "what Puerto Rico health professionals see as their most pressing problems."

Long-range issues require greater analytic capabilities. Such questions as "what investments within the public sector in health services are most likely to reduce illness and disability" are not simply research issues, but involve "strong values and vested interests." Research dollars being as limited as they are, "it is productive to attempt to develop information systems that serve a variety of purposes including management, patient care, planning and health services research." .. A well-organized information system that contributes to effective administration is also likely to be a very useful source of health services research data that facilitates the identification of needs and problems and that makes visible variations in services, expenditures, and performance." Finally, Dr. Mechanic concluded that "it is important to develop a strong health services research capacity in Puerto Rico not only because it will contribute to improving services for Puerto Rican citizens, which is sufficient cause in itself, but also because Puerto Rico has a great deal to teach us as we move toward more organized, planned and regionalized health delivery systems in the future."

Various strategies for organizing and conducting health services research were reviewed. Prof. Sam Shapiro of the Johns Hopkins University presented a case history of a health services research and development center at that institution. The Center at Hopkins was established to "engage effectively in the organization and evaluation of new systems for the delivery of health services." Since January 1, 1971 it has had basic funding from the National Center for Health Services Research for the building of a strong, multidisciplinary staff to develop and conduct evaluative research. Since then the Hopkins Center has attracted a large number of governmental and private foundation grants and contracts. The Hopkins Center "has focused on the assessment of quality, utilization and economics of primary care and how consumers, provider, management, and structural factors, as well as sources, methods, and levels of payment influence the results. Issues were sought out for which the evaluative process provides a basis initially for considering modification of some aspect of the delivery system (e.g., use of mid-level manpower) and later for measuring the outcome of change. *The first two years of the grant were primarily concerned with building staff, developing relationships with health care settings and introducing basic data systems and conducting exploratory methodological studies that would lay the ground for more definitive research.*" (Emphasis added).

The Center is now a separate entity within the Johns Hopkins Medical Institutions, reporting directly to the President of the University. This position facilitates the creation of links across academic lines and strengthens the advisory board.

The locus of the Hopkins Center's research activities are various primary care programs, including the outpatient department of the Johns Hopkins Hospital (half-million visits per year).

The full time director of the Center (Shapiro) is a professor of health care organization who at the same time is a biostatistician and epidemiologist. The associate director is a sociologist.

The Hopkins Center has conducted projects which:

a. assess the potential of an encounter data information system to provide information which is both useful for management purposes and for the evaluation of the process and outcome of care;
b. assess the value of the ambulatory medical record in various structured delivery systems;
c. develop methods for improving the prescribing of drugs;

d. investigate the health care behavior of defined population groups receiving care from a variety of delivery settings and the influence of personal characteristics, knowledge, attitudes and perceived need for care and accessibility on patterns of care. (The principal source of information was a household survey of 2000 familes);
e. identify the effect of varying configurations of physician and non-physician providers of health care on the economics and quality of primary care in structured health care settings;
f. develop and test an Experimental Medical Care Review Organization which places major emphasis on outcome of care measures for quality assurance in ambulatory care where the delivery system has responsibility to provide comprehensive care to a defined population.

Other studies engaged in by the Hopkins Center include:

1. Survey of quality assurance and utilization review mechanisms in HMO prototypes throughout the country.
2. Development and testing through a randomized clinical trial of methodologies for effective health education strategies for hypertension control.
3. Assessment of efficiency and effectiveness of alternative procedures for using diaries in household surveys to obtain reliable and valid information on charges for health care, sources of payment and utilization.
4. Evaluation of regionalized networks for high risk pregnancy care based on end result mortality and morbidity measures and assessments of relationship of process variables to outcome.

The research activites of the Hopkins Center have depended on two methodological strategies: one starts with the community, defined geographically or in terms of enrollment in a health care setting frequently using household interviews, or less costly telephone and mail questionnaire surveys; the other starts with the delivery system, using encounter data and well-organized medical records.

Among the considerations entering into research priorities is the need for data identified by the local Health Systems Agency and by the Forward Plan for Health of DHEW. Other issues receiving high priority are related to community health education and regionalization of health services.

Prof. Shapiro noted that the Hopkins Center for Health Services Research was in the midst of its second five year funding period by the National Center for Health Services Research. During this second phase in the Center's development, its institutional position has remained unchanged but the Center now has more specific responsibilities in the areas of training and service.

In Professor Charles Lewis's (U.C.L.A.) presentation on strategies for organizing and conducting health services research consideration was given to general issues such as: Why do research?; limitations in health services research; health services research as a game with rules and strategies; and a definition of health services research. Lewis defined health services research as "Those activities which serve to rationalize or optimize the delivery of health care, thus producing a more 'ideal health care system', one in which health needs (as defined by a society) are dealt with in the most efficient and efficacious manner. The best outcomes (as defined by society) are achieved for the amount of economic resources society is willing to allocate." Lewis believes that research which has the biggest pay-off is that which : (1) generates new data; (2) is related to a concept or a political issue; and (3) comes from practical settings that can be identified as places where similar activities can occur, so that the question of generalization - while never settled - can at least be considered. He cited as an example the nurse clinician study in which he was involved at the University of Kansas in 1965-1967. "In studying the impact of specially prepared nurses in the medical care of chronic disease-illness, a classic experimental design was used. It generated new data, but was related to a very old idea, i.e., that health care/medical care can be provided by non-physicians. The research was done in medical clinics operating in the real world."

Dr. Paul Densen directed his remarks more specifically to the development of health services research in Puerto Rico. He leaned heavily on the Report of the Evaluation Group to the Senate of the Commonwealth and on Steps in the Improvement of Health Services (referred to as the Mechanic Report). Three major health policy concerns of the Report were: (1) the equity issue; (2) the need for an adequate economic underpinning for the proposed universal health system; and (3) the recommendation that "a comprehensive program of health care for mothers and children should be initiated as the first step toward a more complete health services system for the entire population." To enlighten the equity issue, health services research needs to classify both the population and the users of the health system by socio-economic status. It is desirable also to develop a picture of the flow of funds in the health care system and to have this information by socio-economic status. "If the policy recommendations of the Mechanic Report are put into effect, they should have a major impact on the allocation of resources as reflected in the pattern of the flow of funds and in the distribution of expenditures for

the various kinds of services among the socio-economic groups of the population."

With respect to "a comprehensive program of health care for mothers and children as a first step," health services research is needed to deal with: (1) outreach services; and (2) the relationship between school health programs and delivery of health services generally.

Experimentation should be done with the relative effectiveness of different outreach strategies, e.g., professional workers vs. non-professionals indigenous to the community. The relationship of nutrition to the health development of children needs investigation.

"In the United States school health programs are deplorable." "At the same time . . . it is possible to recognize in elementary school . . . children who are at high risk of having major health problems in early adulthood. . .". Dr. Densen suggested the possibility for the school health program and its integration with the rest of the health delivery system . . . in the regional health centers as an area which would be appropriate for the University to experiment with a population laboratory.

Dr. Densen, after observing the possibilities of health services research information arising from such sources as the Master Sample Survey, concluded with the advice "to keep the research as simple and manageable as possible as well as useful and timely."

"One of the major issues in Health Services Research today is the evaluation of the overall effectiveness of health programs." Dr. Haggerty noted that "evaluation research is not an academic exercise but must be carried out in the political and social world where the ultimate goal is to improve the program or develop a better one." He proceeded to describe a major piece of evaluative research which he had the opportunity to do in Boston some years ago. He tried to determine if "family focused child health care delivered by a health team would result in better health for children as compared to the traditional fragmented emergency room and out-patient care for an indigent population." In describing the evaluation research Dr. Haggerty made particular note of the value of using "on-site reporters, skilled anthropologists or sociologists, who using the techniques of participant observation . . . keep careful records and diaries of what actually (goes) . . . on in the programs." He hoped that "in more instances in the future health services research attempts, actually, to change the independent variable and measure the results as well as to evaluate in a more passive way changes carried out by others." He also noted that "in the future evaluations we will not be able to avoid measuring health status. While it is widely recognized that health services have a relatively small impact on health status, better measures to ascertain this most important outcome will be necessary and deserve high priority in health services research. He concluded that "evaluation research is a central part of health services research. It is still an art form as well as a science, but one that must lead to action and implementation and may lead the curious investigator to develop new theory as well as pragmatic program change."

Dr. Arbona[2] set forth questions about health needs, demands and use of services in Puerto Rico which could be illuminated by health services research. The health needs of the population should be assayed so that the organization and content of health services will be more responsive. Communications difficulties between providers and users in Puerto Rico create a content of health care largely determined by the provider with limited participation by the user.

The change in the morbidity experience of Puerto Rican people over the past 30 years from communicable diseases to long term illnesses and psycho-social pathology requires objective documentation as to extent. Costly, elaborate programs with a focus on this or that problem have led to a high degree of fragmentation. Inquiry should be directed toward determining "what kind of collaboration should exist . . . between social and health programs."

Paradoxical developments in health manpower, surpluses in some technical areas and scarcities in others, need understanding. How can technical manpower be created that is more consonant with the needs of the people? What is the relation between one-time certification and quality of care?

How is the $600,000,000 spent annually on health being used? It is assumed that 60% of the population depends on free health care services. The government has scarcely $100 per capita to provide health services to the economically needy, while the per capita expenditure for health for Puerto Rico is $200 (and in the U.S., $450). Studies should be designed relating financing to the availability of services in both quantity and quality.

Very few facts (as opposed to opinions) are available which explain the lack of collaboration between the public and private sectors. Facts are necesary if the existing situation is to be improved. The impact of Federal programs - Medicare, Medicaid, health planning, food stamps - needs to be evaluated.

New schemes are adopted (but rarely discarded) without evaluation, e.g., the health center idea, regionalization, free choice in the public sector, centralization of services for hospitals, separation of drug addiction and alcoholism services from mental health services and from medical and hospital care. What have been the advantages and disadvantages of these actions? Are the poorly

utilized beds in health centers really needed? Can better use be made of them?

"In Puerto Rico where 60% of the population utilized one health care system (the Governmental) planning can and should be quite different from what it is on the continent."

In discussing Dr. Arbona's paper, Dr. Pacheco observed that:

(1) While economic growth has taken place, Puerto Ricans are finding that the quality of life is suffering.
(2) As government service structures multiply, community dissatisfaction increases.
(3) Health services, having become increasingly technical, appear to be less humane and less person-oriented.
(4) Puerto Rican society has come to perceive an increase in the number of persons designated as alcoholics, drug abusers, criminals, and mentally ill, along with a trend to rely on physicians and health services providers for "rehabilitation" of these "sick" individuals.
(5) With physicians having come to be the dominant service providers, there is little information on the major role played by folk healers and espiritistas in providing health related research.

Dr. Pacheco felt that the high fragmentation of research efforts in Puerto Rico was an obstacle to greater influence on policymaking. He felt that the present Conference of Health Service Research in Puerto Rico was "a major and pioneer step in the direction of inventing means for strengthening and sharing efforts for both policy makers and researchers." He suggested the continuance of conferences such as this while in the interim "entrusting a joint committee of health services representatives with the task of monitoring the implementation of the conclusions of the Conference."

With respect to information systems, Dr. Pacheco underscored the utility of the Master Sample Survey as "the single most important health related data base." He also cited a need to train policy-makers and researchers in the use of the data already available, and suggested the School of Public Health as an ideal depository of data which would be subsequently submitted to further analysis. It may be necessary to invoke the Freedom of Information Act to learn about research findings in Puerto Rico.

Dr. Pacheco reaffirmed Dr. Arbona's point with respect to the need for research on the users' perceptions of their health care needs, the providers' views of the users' needs, as well as the users' views of how the system fails or meets their needs. This has certainly been a neglected area of research in Puerto Rico, Dr. Pacheco said.

Dr. Villamil offered some guidelines for a Puerto Rican research strategy in the area of health services. In its rapid development from a traditional agricultural economy to a complex industrial economy, Puerto Rico adopted technology, mainly from the U.S., which has often been disruptive. Puerto Rico is a small, densely populated island, not a large continental nation. An explicit detailed long range policy for health services needs to be developed, based on a powerful research capability. " . . . Many of the negative impacts of U.S. intervention have come about precisely because in Puerto Rico there has been little sense of direction of the health sector and no explicit policy posture, other than the pursuit of U.S. funds", frequently stimulating the fragmentation of the Puerto Rican health system.

Dr. Villamil noted that in Puerto Rico there is "no tradition of dedication to research in the health services field." " . . . The attitude seems to be that research is either a luxury or that it is simply not needed." Still: "The Department of Health developed some time ago a most useful research instrument for the formulation of policy in the health field, the Master Sample Survey. It has had a sketchy life at best and in recent years has been unutilized for the most part. The Master Sample Survey must be one of the basic components of a health services research system, although in order for it to be useful, changes will have to be instituted in how it operates and in the organizational structure within which it is established." "Any research policy for Puerto Rico in health services must include the continuous monitoring and evaluation of government and non-government programs." Dr. Villamil " . . . hoped that the Master Sample Survey and the new information system being established at the Health Department will facilitate this task."

Dr. Villamil visualized for Puerto Rico eventually " . . . an organization similar in some ways to the British Medical Research Council . . . " in order to disassociate research from entrenched bureaucracies . . . and yet be able to work with them and respond to the needs of the health sector. Dr. Villamil felt it was necessary for Puerto Rico to generate its own research funds in order to decrease the dependence on U.S. funds with their potential for affecting Puerto Rican research priorities. A "Health Research Council" with representatives of the Department of Health, of the Medical Sciences Campus, and of other agencies related to the health of Puerto Ricans should be established as a quasi-autonomous body.

In Dr. Villamil's final comments he stated that: "Puerto Rico has been a laboratory far too long; much of the research done has had little to do with the welfare of our people and much too much with the needs of particular researchers . . . It is time that we began to depend on our own resources

and that we began to develop the personnel required for carrying out the needed research."

Formal reactors to Dr. Villamil's proposed "strategy for health services research in Puerto Rico" included:

1. The Director of the Health Systems Agency in Puerto Rico, Lcda. Ada Pérez de Castillo.
2. The Assistant Secretary for Planning, Department of Health, Puerto Rico, Dr. Luis Miranda.
3. The representative from a non-governmental research firm, Health and Social Studies, Inc., Mr. Raúl Muñoz.

The Director of the Health Systems Agency said that this Agency has among its functions the elaboration of plans based on information and analysis of Puerto Rican realities. The Health Systems Agency will point out areas of research which might be required as part of the planning process. With respect to Dr. Villamil's recommendation of creating a council on health services research, Lcda. Pérez raised some questions:

—Who will establish priorities of researchable issues?

—What representation will there be of the public sector, which will be the most affected in the determination of priorities?

—What will be the composition of the council?

—How will activities be financed? Lcda. Pérez said that because of limitations in state funds, it is impossible to disassociate from federal funding, which could affect research priorities.

—How is the quality of research to be controlled, if delegated?

Lcda. Pérez recommended that the Health Systems Agency should be considered an active participant in the planning and operational stages of research; and finally that the Health Systems Plan be taken as a reference to determine the specific areas of research.

The Assistant Secretary for Planning of the Puerto Rico Health Department, Dr. Miranda, tended to favor a less structured approach to research. He pointed out that the Health Department and the Medical Sciences Campus do not necessarily share the same concerns or even philosophical outlook. To create a "council" would only introduce a third-party jealous of its own survival in negotiation with the Department and the Campus. The Department of Drug Addition is a fourth party. Dr. Miranda believed the Campus should take the lead and give ample participation to the Health Department and other interested parties, at least with respect to the priority setting process. The Health Department lacks enough personnel with the necessary expertise. This has hampered the "Muestra Básica" which collects health survey data every year, but issues few reports. Dr. Miranda recommended the development of an information pool consisting of the results of previous research. Dr. Miranda also suggested the formation of a group of people (without an office) but representing the entities within the Commonwealth that impact on the health system, including the Medical Association or the P.S.R.O.

Raul Muñoz, who had spent 35 years in public service, currently is representing a consulting firm which does research, evaluation and planning studies with both private and public agencies in Puerto Rico. He described the original organization for the Master Sample Survey which was set up when Dr. Arbona was Secretary of Health. An advisory council, composed of program heads of the Department of Health and the School of Public Health, established priorities for issues to be researched. The Master Sample Survey had a two-part approach: regularly, data were collected on the incidence of illness and medical care received; quarterly, special surveys were done on a priority problem for health research, determined by the advisory council.

Muñoz warned that the priorities of elite professionals (such as those attending the Conference) might be different from the priorities of the average citizen. As an example, he referred to the public-private separation of medical services in Puerto Rico which in his opinion was being blurred by the increasing congruence in the perception of what is available and what is needed. He also reaffirmed Dr. Haggerty's emphasis on evaluation research as an opportunity to relate to policy development. A type of research not mentioned by Dr. Villamil, but touched on by Dr. Arbona, Mr. Muñoz referred to as "anticipatory research" done as preparation for policy formulation.

Mr. Muñoz felt: "There is not enough good research being done in Puerto Rico. . . . Ongoing research is not adequate (in) the methodological and conceptual sophistication it ought to have." In his opinion, ". . . the reason for that situation is that we lack the manpower for doing high level research in Puerto Rico. We do not lack the manpower for doing low level or middle level research. We have been slow in preparing high level researchers in Puerto Rico." As to funding: "If we just set aside one half of one percent of every appropriation for operational programs in Puerto Rico, we would have enough to start a good base of research, especially in the two big departments—the Department of Education and the Department of Health." In summary, Rául Muñoz suggested that the elements for the nucleus of a Health Services Research Center in Puerto Rico were available: an interdisciplinary setting related to the University and to operational programs; and the law that is being administered by the Health Systems Agency which has the funding, power and Federal regulations.

Following the deliberations of the Conference a proposed agenda for health services research was placed before the Conference by Jack Elinson. To be considered were: how Puerto Rico can make maximal use of existing resources with minimal new sources of support; what conditions in Puerto Rico facilitate health services research and what factors appear to be obstacles; and how one might evaluate the accomplishments of health services research in Puerto Rico in both the short and the long run. As an initial item in the proposed agenda a "Health Services Research Office" would be created whose functions would encompass: an inventory of all health services research in Puerto Rico in the past 25 years; and its classification for relevance to health services policy issues; maintenance of an archive of health services research results, along with documentation to permit researchers to evaluate the quality of the work; provision of technical, analytic, and reporting capability for the Puerto Rican Master Sample Survey; liaison between the Medical Sciences Campus and the Department of Health so that research questions could be injected into the Master Sample Survey on a periodic basis; and generally to inspire and teach the faculty how to use the Master Sample Survey. The proposed agenda would also include University policy and action to provide incentives for faculty to engage in health services research by reduction of teaching obligations, or by additional compensation, or both. As beginning steps, health services research studies should be undertaken which are relatively discrete and clearly policy relevant. Researchers could imaginatively capitalize on ongoing information systems organized for administrative purposes.

As for arrangements and settings for research, the differential capabilities and objectives of university faculties, government departments and independent institutes should be taken into account. Collaboration with one or more organized university health service research centers, sponsored and supported by the National Center for Health Services Research, should be explored.

Finally with a view toward the future, Puerto Rico should encourage promising investigators to pursue advanced study in health services research. One strategy along these lines would be to take advantage of the Federal Intergovernmental Personnel Act which facilitates temporary placement of university faculty in relevant federal agencies engaged in health services research.

A favorable climate for further developments in health services research in Puerto Rico has been fostered by the academic and government participation in this Conference. The Puerto Rican Secretary of Health, Dr. Jaime Rivera Dueño, placed heavy emphasis in the importance of assuring the relevance of research to problems requiring solutions in the short run. Sociocultural differences between Puerto Rico and the United States must be recognized, especially in issues of mental health. From the standpoint of the Secretary of Health, priorities have to be set on the basis of the real needs of the people. A lot of research has been done in Puerto Rico. It should be taken off the shelf, dusted off, analyzed and evaluated to see whether it can be immediately utilized.

Dr. Rosenthal commented on Dr. Elinson's proposals as developed during the Conference proceedings. He noted, however, that users of research who have a responsibility for "establishing the importance of the inquiry" are not all policy makers, but include also providers of care, service deliverers and consumer groups; in short, all people that have concerns about the performance and operation of the health care delivery system. Secondly, Dr. Rosenthal observed that "In the course of systematic inquiry researchers often develop issues which become of more general interest." ". . . A healthy system has a constant process of systematic inquiry, of challenging, evaluating, and verifying the changes that take place and arranging them in a way that people in the real world who operate the system can understand and use that knowledge."

Referring to the utility of the Puerto Rican Master Sample Survey, Dr. Rosenthal noted that this was not unique to Puerto Rico, but that the NCHSR itself had initiated a prospective 12-month survey of 11,500 families to identify the sources of care, the nature of expenditures, the sources of funds for those expenditures and patterns of utilization. The "impact on policy (of the results of this study) may be instantaneous."

Dr. Rosenthal observed that "Puerto Rico has been . . . more successful . . . than most under-researched places in the U.S. at capturing the interest of health services researchers. . ." He concluded with this statement: "I look forward to the National Center for Health Services Research expanding and reenforcing its commitment to your effort here as elsewhere. We will do our best to ensure a successful demonstration of the essential nature of research in a world that is committed to the delivery of quality health care services."

References

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Resumen Ejecutivo— Conferencia Sobre Investigacion en Servicios de Salud en Puerto Rico

De vez en cuando durante la última mitad de este siglo las características especiales del sistema de prestación de servicios de salud en Puerto Rico han atraído la atención de los investigadores en servicios de salud. Durante este período de tiempo, la mayor parte de los puertorriqueños ha recibido asistencia médica en hospitales y centros de salud que son propiedad de y operados por el gobierno. La mayor parte de los tres millones de puertorriqueños todavía recibe esa asistencia medica, especialmente la población de escasos recursos.

El gobierno del Estado Libre Asociado, aún dentro de la asociación política existente con los Estados Unidos, donde predomina el sector privado en la asistencia médico-hospitalaria, provee a la mayor parte de su población con asistencia médico-hospitalaria.

El interés profesional en este patrón o sistema de prestación de servicios se refleja en diferentes épocas en los trabajos de investigadores en servicios de salud de renombre como Mountin, Pennelly Flook (1) y Trussell y Arbona (2).

Los Estados Unidos y Puerto Rico están en constante lucha por mejorar la capacidad para proveer a sus respectivas poblaciones con servicios de salud equitativos, eficientes y efectivos. Investigadores en servicios de salud en ambos lugares diseñan estrategias de aplicabilidad mutua para enfrentarse a problemas de salud comunes. Con la idea de promover este esfuerzo conjunto, el Centro Nacional para Investigación en Servicios de Salud, (National Center for Health Services Research) solicitó a la Facultad de Ciencias Biosociales y Escuela Graduada de Salud Pública del Recinto de Ciencias Médicas, la organización de una conferencia para discutir el desarollo de una agenda de investigación sobre servicos de salud para Puerto Rico. Varios de los más experimentados y prominentes investigadores en servicios de salud fueron invitados a contribuir presentando sus ideas.

Asistieron a la conferencia Líderes en el campo de determinar política pública en Puerto Rico, así como representantes de distintas agencias del gobierno federal. Entre estos figuraron: el Hon. Secretario de Salud del Estado Libre Asociado de Puerto Rico, el Presidente de la Asociación Médica de Puerto Rico, el Rector del Recinto de Ciencias Médicas de la Universidad de Puerto Rico, el Director Ejecutivo de la Angencia de Desarrollo de Recursos de Salud, representantes de la Junta de Planificación de Puerto Rico y del Departamento de Servicios Sociales, el Director de los Servicios de Salud del Municipio de San Juan y el Decano de la Facultad de Ciencias Biosociales y Escuela Graduada de Salud Pública del Recinto de Ciencias Médicas de la Universidad de Puerto Rico. Entre las agencias del gobierno federal estuvieron representadas el Centro Nacional para Investigaciones en Servicios de Salud (National Center for Health Services Research), los Negociados de Recursos Humanos y Planificación en Salud (Bureau of Health Manpower and Health Planning), la región II del Departamento de salud, Educación y Bienestar Federal, la oficina de Salud Internacional del Servicio de Salud Pública Federal, etc. (referirse a la lista de participantes.) Entre los participantes de la Conferencia estuvieron presentes los miembros de la facultad de la Universidad de Wisconsin, la Universidad de Harvard, la Universidad de California en Los Angeles, la Universidad de John Hopkins, la Universidad de Carolina del Norte y la Universidad de Columbia. Entre los participantes por la Universidad de Perto Rico estuvieron presente miembros de la Facultad de Ciencias Biosociales y Escuela Graduada de Salud Pública, Escuela Graduada de Planificación y Escuela Graduada de Sicología. Fundaciones privadas con interés en Salud e inestigación como el Milbank Memorial Fund, la Robert Wood Johnson y la Corporación de Servicios Sociales de Salud, estuvieron representadas.

Los objectivos específicos de la Conferencia fueron:

1. Exponer los asuntos más importantes de la política pública en servicios de salud según visualizados por las figuras de liderato público de Puerto Rico; y sugerir como la investigación en servicios de salud puede dirigir su atención hacia ellos.
2. Examinar las distintas estrategias que se han

utilizado en algunos de los principales centros de investigación sobre servicos de salud de los Estados Unidos para organizar y conducir investigación.

3. Evaluar el estado de la investigación en servicios de salud en Puerto Rico.

4. Sugerir estrategias para el desarrollo de la investigación en servicios de salud en Puerto Rico y obtener la reacción de los oficiales (Departamento de Salud, Agencias de Sistemas de Salud de Puerto Rico) que posiblemente puedan usar las estrategias sugeridas.

5. Proponer una agenda para Investigación en Servicios de Salud para Puerto Rico y discutir la utilidad y factibilidad de dicha agenda desde el punto de vista del interés público y privado del sector salud; del sector académicio y del gobierno federal.

Las sesiones oficiales de la conferencia se planificaron y organizaron teniendo como base estos objectivos.

La primera sesión se dedicó a dilucidar los asuntos de política de servicios de salud de Puerto Rico. La ponencia sobre este tema estuvo a cargo del Dr. Jorge J. Fernández Pabón, Rector del Recinto de Ciencias Médicas de la Universidad de Puerto Rico. El Doctor Fernández definió los criterios para establecer prioridades en investigatión: 1) que se traten asuntos que presentan áreas problemáticas pertinentes a la realidad de Puerto Rico. 2) que el ambiente de Puerto Rico sea adecuado para conducir ésta. El doctor Fernández visualizó la conferencia como un preludio para el establecimiento de un Instituto de Investigaciones. Proveyó un breve recuento histórico del desarrollo de Puerto Rico, pasando de inmediato a identificar y discutir asuntos relacionados con políticas de salud del país durante ese período. Argumentó que uno de los asuntos de política de salud más importante lo es el conflicto entre el sistema de prestación de servicios de salud local (de Puerto Rico) y la imposición de legislación federal en base a la discordancia en perspectiva filosófica, histórica, cultural y económica. Resaltó el hecho de que el informe de Mountin (1) esencialmente abogaba "por más activa participación gubernamental a nivel insular (opuestos a municipal o local), en la regionalización de la atención hospitalaria y la urgente aplicación de medidas de salud pública para prevenir enfermedades transmisibles, las cuales eran (para aquella época) las principales causas de mortalidad y morbilidad en la isla". El informe de Mountin fué utilizado por el liderato del país "que llevó a cabo . . . una revolución en la atención de la salud . . . y una de las mas prosperas hazañas en la historia de progreso en los niveles de salud de un pueblo". La Segunda Guerra Mundial y tres factores que le sucedieron: rápido desarrollo económico y en las expectativas; educación médica basada en el modelo norteamericano y la disponibilidad de fondos federales, dieron lugar a situaciones en el sistema de prestación de servicios de salud que se convirtieron en causas de controversia en el país. Los asuntos más importantes de política de salud que surgieron de estos desarrollos son:

—el conflicto entre el sistema de presatación de servicios de salud de Puerto Rico y la legislación federal.
—la capacidad del sistema de prestación de servicios de salud de Puerto Rico para satisfacer la creciente demanda por atención médica.
—los servicios inadecuados que reciben las clases pobres por concepto de una distribución inadecuada de recursos.
—insuficientes conocimientos sobre la relativa eficiencia de los sectores públicos y privados en la prestación de servicios de salud.
—la participación de los consumidores en una comunidad altamente estructurada, teñida de paternalismo y con un (control) monolítico de los servicios de salud.
—crecientes costos y desigualdades en la disponibilidad y la calidad de los servicios de salud.
—orientación engañosa de la opinión pública respecto a problemas de política de salud que son de por sí complejos y confusos y el ofrecimiento de soluciones simplistas.
—conflicto entre los sectores públicos y privados.
—injusticia social que surge de las discrepancias en los recursos disponibles a cada sector.
—Legislación federal que apoya al sector privado, que es el que más desperdicia, a costo del sector público.

El Dr. David Mechanic relacionó los asuntos de política pública a las prioridades en la investigación de servicios de salud en Puerto Rico.

Primeramente hizo un recuento de los problemas comunes que encaran la mayoría de los países en el mejoramiento de los servicios de la salud, a saber:

1. Determinar la proporción de la riqueza nacional a utilizarse para atención médica y como esta partida debe distribuirse entre programas preventivos, de cuidado agudo y de atención a condiciones crónicas.
2. Hacerle frente a la fragmentación inevitable de los servicios y desarrollar un balance entre los distinto tipos de servicios.
3. Identificar mediante la utilización de metodología epidemiológica las necesidades de toda la población y no solamente las de

aquellos grupos que usan unos servicios particulares.

4. Ya que la mayoría de las demandas por servicios médicos son relativamente sencillas se debe ponderar sobre cuál debe ser la función del cuidado primario haciendo hincapié las necesidades de poblaciones definidas.
5. Controlar y supervisor la utilización, el costo y la calidad de los servicios a la vez que se evitan los costosos procedimientos burocráticos.

El doctor Mechanic subrayó la posición favorable de Puerto Rico en relación o otros países porque existe en la isla un gran compromiso del pueblo respecto a la prestación de los servicios de salud por.el gobierno, y una tradición de organización pública para enfrentarse a las demandas de atención médica. El problema básico para la investigación de servicios de salud es como reforzar más efectivamente ese compromiso y esa tradición.

Siendo realistas, tenemos que concluir que los fondos para la investigación de servicos de salud en Puerto Rico son limitados y que solamente algunos de los asuntos pueden estudiarse a profundidad. Los criterios desarrollados por el Centro Nacional de Investigación de servicos de Salud, pueden servir como guía útil para establecer prioridades en la investigación si no son aplicados muy rígidamente. Entre estos criterios se encuentran los siguientes: la utilidad probable de la investigación y la disponibilidad de investigadores calificados para llevar a cabo aquellos problemas que afectan la distribución de recursos sustanciales, que afectan un segmento amplio de la popla-ción, y que demandan un creciente interés legislativo serían también asuntos que obviamente deben investigarse.

A pesar de la aparente utilidad o no-utilidad de alguna de la investigación que se lleva a cabo, el doctor Mechanic advirtió " . . . aquello que puede parecer desatinado de acuerdo con la política pública en un momento dado puede tornarse crucial unos años más tarde". El criterio de atino si se aplica muy rígidamente puede ". . . llevarnos a darle apoyo a esfuerzos investigativos que a la larga pueden resultar ser menos valiosos que investigacions que tengan una visión amplia y que breguen con problemas más genéricos." Los ejectivos y elaboradores de política pública . . . demandando a veces una solución rápida exigen que se investiguen asuntos que responden a una percepción de las necesidades del momento mientras muchos de los asuntos fundamentales persisten recurriendo los mismos problemas año tras año sin que se investiguen. Por lo tanto, es con frecuencia sumamente productivo obtener una visión a largo plazo y proveerle apoyo amplio a estudios que bregan con problemas difíciles pero más abarcadores".

"El investigador de servicios de salud que se envuelve en la investigación de este tipo de problema reconoce que a pesar de que con toda serguridad no verá una aplicación directa e inmediata de los resultados de sus investigaciones debido a las barreras políticas y sociales que pueden existir, sin embargo, estará contribuyendo, a la larga a un clima de aumentar el conocimiento que podrá llevar a los futuros líderes forjadores de política pública, a pensar y mirar los problemas de un modo distino.".

El doctor Mechanic opina que, como subrayó el doctor Fernández, las tradiciones de servicios de salud en la isla son diferentes de aquellas existentes en Estados Unidos propiamente. Puerto Rico por lo tanto, debe dirigir su enfoque investigativo no sólo hacia lo que pueda parecer práctico en el momento, sino más bien, a desarrollar buena información respecto a la naturaleza de los problemas de servicios de salud, y hacia los probables efectos de posible legislación federal sobre Puerto Rico. El doctor Mechanic esbozó problemas de corto y largo alcance que podrían ser enfocados en Puerto Rico.

Entre los problemas de corto alcance incluyó los siguientes: una mejor definición del tipo y alcance de los servicios que sería necesario proveer a nivel del centro de salud; la aceptación de practicantes de enfermería y su efectividad en relación al costo; el uso de camas, en lugar de otras estructuras para llenar necesidades médico-sociales; y por último, instituir y operar sistemas de información sencillos y efectivos al nivel de cuidado primario. Desde un punto de vista práctico, el doctor Mechanic expresó que los proyectos particulares que se escojan para ejecución deben reflejar "lo que los profesionales de la salud en Puerto Rico entiendan que son sus problemas más apremiantes'..

Los problemas de largo alcance requieren una mayor capacidad analítica. Problemas tales como "Qué tipo de inversiones en los servicios de salud en el sector público tienen mayor potencial para reducir la enfermedad e incapacidad" no son simplemente asuntos de investigación, sino que envuelven consideraciones de valores e intereses creados". Con las limitaciones existentes en fondos para la investigación "es altamente deseable y productivo tratar de desarrollar sistemas de información que sirvan una multiplicidad de propósitos incluyendo entre ellos administrativos, para la planificación del cuidado del paciente e investigación en servicios de salud, . . . " . . . "un sistema de información bien diseñado y organizado que contribuya a una administración efectiva, probablemente también sea útil como fuente de información relevante para la investigación de servicios de salud que a su vez facilite la identificación de problemas, necesidades y que genere alternativas y variaciones en los servicios, gastos y funcionamiento. Concluye finalmente el doctor Mechanic aseverando que . . . "es muy importante

que se desarrolle en Puerto Rico una sólida y amplia capacidad para la investigación en servicios de salud no sólo porque ésto contribuirá a mejorar los servicios para los ciudadanos puertorriqueños, lo cual de por si es causa suficiente, sino porque en los Estados Unidos Continentales nos movemos hacia un sistema de prestación de servicios de salud mejor organizado, planificado y regionalizado y en este aspecto Puerto Rico tiene mucho que enseñarnos."

Se presentaron varias estrategias para organizar y conducir investigación sobre servicos de salud. El Profesor Sam Shapiro de la Universidad de John Hopkins expuso la forma en que evolucionó el centro de investigación y desarrollo de servicios de salud en dicha institución. Este centro fue establecido para "bregar efectivamente en el diseño, organización y evaluación de nuevos sistemas para la prestación de servicios de salud". Desde el lro de enero de 1971 dicho centro ha recibido asignaciones de recursos fiscales del Centro Nacional para Investigación Sobre Servicios de salud (N.C.H.S.R.) con el propósito de desarrollar allí un personal multidisciplinario con una sólida capacidad para diseñar y llevar a cabo investigación evaluativa. Desde entonces este centro ha logrado conseguir un gran número de contratos y subvenciones de fundaciones privadas y gubernamentales. El Centro de Hopkins ha enfocado su atención en la evaluación cualitativa, en la utilización y economia del cuidado primario, al igual que en demostrar como los consumidores, proveedores, la administración y factores estructurales al igual que las fuentes, métodos y niveles de financiamiento influyen sobre los resultados.

Se dirigió la atención hacia problemas para los cuales el proceso evaluativo provee una base inicial para considerar modificaciones de algún aspecto del sistema de prestación de servicios (como por ejemplo, la utilización de recursos humanos de nivel intermedio) para luego evaluar el resultado del cambio. *Los recursos económicos asignados para los primeros dos años se utilizaron principlamente para la formación del personal, para desarrollar relaciones con el sector a cargo del cuidado de la salud, para introducir sistemas básicos de información y para conducir estudios en metodología que luego sentarían las bases para investigaciones concretas".* (subrayado por Jack Elinson).

El Centro es hoy día una entidad separada dentro de las Instituciones de salud de la Universidad de John Hopkins, respondiendo directamente a la presidencia de la Universidad. Esta situación facilita el establecimiento de relaciones entre y con las distintas unidades académicas y refuerza la posición de la Junta Consultiva.

El lugar principal donde se llevan a cabo las actividades de investigación del Centro de Hopkins lo constituyen varios programas de cuidado primario entre los que se incluye el departamento de clínicas externas del Hospital John Hopkins (medio millón de visitas por año).

El director a tiempo completo del Centro (Shapiro) es profesor de organización de servicios de salud, epidemiólogo y bioestadístico a la misma vez. El director asociado en un sociólogo.

El Centro de Hopkins ha conducido proyectos para:

a) evaluar el potencial de un sistema de información sobre encuentros para generar información útil tanto para propósitos de administración como para la evaluación del proceso y el resultado del servicio;
b) evaluar el valor que tiene el récord médico ambulatorio dentro de varios sistemas de prestación de servicios;
c) desarrollar métodos para mejorar la prescripción de drogas y medicamentos;
d) investigar los patrones de comportamiento respecto al cuidado de la salud de poblaciones definidas que reciben atención médica de una variedad de fuentes; así como determinar la influencia que ejercen las características personales, los conocimientos, actitudes, y percepción de la necesidad por servicos y la accesibilidad a estos. La fuente de información principal lo fue una encuesta a unas 2,000 familias realizada casa por casa;
e) identificar el efecto que tiene sobre la prestación de servicios de salud el uso de diversas combinaciones de proveedores médicos y no médicos en términos del impacto económico y la calidad del cuidado primario prestado en ambientes estructurales de servicios de salud;
f) desarrollar y poner a prueba una organización experimental para la evaluación de la atención médica, la cual pone el énfasis en los resultados de las medidas encaminadas a asegurar calidad en el cuidado ambulatorio en áreas donde el sistema de prestación de servicios es responsable por proveer la atencion total a una población definida.

Otros estudios realizados por el Centro Hopkins incluyen:

1. Encuestas sobre control de calidad y mecanismos de revisión de la utilización en prototipos de organizaciones para el Mantenimiento de la Salud (HMO).
2. Desarrollo y evaluación de metodologías para la implantación de estrategias eficaces de educación en salud para el control de la hipertensión.
3. Evaluación de la eficiencia y efectividad de distintas alternativas al uso de diarios para recoger información válida y confiable sobre cargos por servicios de salud, fuentes de financiamiento y patrones de utilización de servicios en encuestas de domicilios.

4. Evaluación de sistemas de regionalización para la atención de embarazos de alto riesgo utilizando como indicadores medidas de mortalidad y morbilidad y la evaluación de las relaciones entre las distintas variables y el resultado obtenido.

Las actividades de investigación del Centro de John Hopkins han descansado principalmente en dos estrategias metodológicas: una utilizando comunidades definidas geográficamente o en términos de matricula a un centro de servicios de salud a las cuales se realizan encuestas telefónicas y el envio de cuestionarios por correo para la recopilación de la información. La otra metodolgiá utiliza la información obtenida de los récords médicos por concepto de los encuentros del paciente con el sistema de prestación de servicios.

Entre las consideraciones que se toman en cuenta para la determinación de prioridades en la investigación es la necesidad de información que tienen las Agencias de Sistemas de Salud (Health Systems Agency) y las Oficinas Planificadoras de Programas del Departamento de Salud, Educación y Bienestar. Otros asuntos o problema s que reciben alta prioridad están relacionados con la educación en salud de la comunidad y la regionalización de servicios de salud.

El Profesor Shapiro señaló que el centro de John Hopkins está en el transcurso de su segundo periódo de cinco años de subvención por el Centro Nacional de Investigación de Servicios de Salud. Durante esta segunda fase de su desarrollo su orientación no ha cambiado, pero el Centro ha contraído ahora más responsabilidades en las áreas de entrenamiento y servicio.

En la ponencia del Dr. Charles Lewis (U.C.L.A.) sobre estrategias para organizar y llevar a cabo investigaciones en servicios de salud, se resaltaron asuntos tales como:

—¿Por qué hacer investigación?
—limitaciones en la investigación en servicios de salud;
—la investigación enfocada como un juego que contiene reglas y estrategias específicas;
—una definición de investigación en servicios de salud.

Lewis definió la investigación en esta área como "aquellas actividades que sirven para racionalizar y optimizar la prestación de servicios de salud, produciendo por ende un siestema de servicios de salud ideal; uno en el cual se brega en forma eficiente y efi caz con las necesidades de la sociedad, en la manera en que esta las ha definido. Los mejores resultados (según los define la sociedad) son aquellos que se alcanzan por la cantidad de recursos económicos que la sociedad está dispuesta a invertir". Lewis opina que la investigación que más rendimiento produce es aquella que:

1) genera nueva información;
2) está relacionada a un concepto o asunto de política pública; y
3) Proviene de ambientes o lugares en donde actividades similares punden llevarse a cabo, de manera que el problema de la generalización-aunque nunca totalmente resuelto-pueda al menos considerarse.

Cita como ejemplo el estudio sobre la enfermera clínica (nurse clinician) en el cual él trabajó en la Universidad de Kansas, durante los años 1964–67. "En el estudio del impacto de enfermeras especialmente entrenadas en el cuidado de enfermedades crónicas, se utilizó un diseño experimental clásico. Este generó información nueva pero relacionada a un concepto antiguo: que los servicios médicos y de salud pueden ser administrados por personalno-médico. La investigación fue llevada a cabo en clínicas reales.

El Dr. Paul Densen dirigió sus observaciones más específicamente al desarrollo de servicios de salud en Puerto Rico. Se apoyó en el informe rendido para el Senado de Puerto Rico por el grupo de Evaluación dirigido por el Dr. David Mechanic sobre el desarrollo de un sistema de salud universal y los pasos a seguir para el mejoramiento de los Servicios de Salud (el llamando Informe de Mechanic).

Los tres asuntos de mayor pertinencia en el Informe fueron:

1. el punto a cerca de la equidad;
2. la necesidad de apuntalar económicamente hacia el propuesto sistema universal de salud; y
3. la recomendación de que debe iniciarse "un programa comprensivo de cuidado materno-infantil que sirva como un primer paso hacia la consecusión de un sistema de servicios comprensivos de salud para toda la población.

Para clarificar el punto de la equidad es necesario que se clasifique la población al igual que los usuarios del sistema de salud de acuerdo a su estado socio-económico.

Seriá conveniente obtener también un cuddro claro sobre la forma en que se distribuyen los recursos económicos en el sistema de servicios de salud y tener esta información también clasificada por estado socio-económico de la poblacion.

"Si se implementaran las recomendaciones contenidas en el Informe Mechanic respecto a política pública, estas debieran tener un gran impacto en las asignaciones de recursos, según se refleje en el patrón de distribución de fondos y de gastos por los distintos tipos de servicios ofrecidos a los distintos grupos socio-económicos de la población".

En lo que respecta a un "programa abarcador de atención a la salud materno-infantil como un primer paso", se requiere investigación que atienda:

1. los servicios de búsqueda de casos; y

2. la inter-relación entre los programas de atención a la salud de escolares y la prestación de servicios de salud en general.

Debe experimentarse con la efectividad relativa de distintas estrategias de búsqueda de casos como por ejemplo la utilización de trabajadores profesionales vis a vis no profesionales oriundos de la comunidad. También se requiere investigación sobre la relación entre la nutrición y el desarrollo de la salud del niño.

"Los programas de salud escolar en los Estados Unidos son deplorables". "A la misma vez . . . es posible identificar niños de escuela primaria con alto riesgo de desarrollar serios problemas de salud en su etapa temprana de adultos. . ." El doctor Densen sugirió también como un área de legítimo interés para la Universidad el estudio de ubicar la responsabilidad por el programa de salud escolar y su integración dentro del resto del sistema de prestación de servicios en los centros de salud.

Luego de señalar las posibilidades de la Muestra Básica como un recurso para generar información útil para la investigación en servicios de salud, el doctor Densen concluyó con el siguiente consejo: "es necesario mantener la investigación lo más simple y manejable posible a la vez que útil y pertinente".

"Uno de los mayores problemas en el campo de la investigación de servicios de salud hoy en diá lo es la evaluación de la efectividad total de los programas de salud". El doctor Haggerty señaló que "la investigación con fines evaluativos no es un ejercicio académico sino más bien algo que debe llevarse a cabo en el mundo politico y social donde la meta final es mejorar el programa o desarrollar uno mejor". Procedió entonces el doctor Haggerty a describir una importante pieza de investigación evaluativa que él tuvo la oportunidad de desarrollar en Boston algunos años atrás. En ella el doctor Haggerty trató de determinar si "los servicios de salud a niños, orientados a través de la familia y prestados por un equipo de salud, resultarían en una mejor salud para los niños en comparación con el tratamiento ambulatorio y de sala de emergencia fragmentado que tradicionalmente se le ofrece a la población indigente". Al describir la investigación con propósitos evaluativos el doctor Haggerty hizo hincapié en la importancia de utilizar sobre el terreno personas con entrenamiento, antropólogos diestros, sociólogos, quienes usando técnicas de observación directa llevan un historial y anotaciones diarias sobre lo que realmente acontece en los programas. . ." Tiene esperanzas de que la investigación en servicios de salud en la mayor parte de las ocasiones futuras se atreva realmente a cambiar la variable independiente y a medir los resultados, así como también a evaluar en una forma más pasiva los cambios realizados por otros". También señaló que . . . "en evaluaciones futuras no podremos evitar o escaparnos de medir el estado o condiciones de salud de poblaciones". A pesar de aceptar el hecho de que los servicios de salud tienen un impacto relativamente pequeño sobre el estado o condiciones de salud de la población, es necesario y de alta prioridad para la investigación, en servicios de salud el desarrollar mejores formas de medir este resultado tan importante. Concluye el doctor Haggerty diciendo "que la investigación evaluativa es parte central de la investigación de servicios de salud. Todaviá es una forma de arte a la vez que ciencia, que impulsa a la acción y a la implementación y que puede llevar al investigador curioso a desarrollar nuevas teorías y cambios pragmáticos en los programas".

El Dr. Guillermo Arbona expuso preguntas sobre las necesidades de salud, las demandas y la utilización de servicios de salud en Puerto Rico, las cuales podrían ser clarificadas por medio de la investigación de servicios de salud. Las necesidades de salud de la población deben de ser analizadas y definidas, de modo que la organización y contenido de los servicios de salud respondan a estas. En Puerto Rico los problemas de comunicación entre proveedores y usuarios resultan en un contenido de servicios de salud determinado mayormente por el proveedor con una participación muy limitada y escasa del usuario.

El cambio en los patrones de morbilidad experimentado por la población puertorriqueña en los últimos 30 años, pasando de una etapa de alta morbilidad y mortalidad a causa de enfermedades transmisibles a una etapa en la cual las principales causas de morbilidad y mortalidad lo son las enfermedades crónicas y de larga duración, así como la patologiá sico-social, requiere documentación objectiva respecto a su causa y alcance.

Los costoso y elaborados programas con enfoques en tal o cual problema han resultado en un alto grado de fragmentación. Debe realizarse investigación orientada a determinar el tipo de colaboración que debe existir entre los programas sociales y los de salud".

El desarrollo paradógico en la formación de personal de salud, sobrantes en unas áreas y carestiá en otras, requiere esclarecimiento. Cómo puede formarse personal técnico en mayor consonancia con las necesidades de la población? Cuál es la relación que existe entre certificación única, inicial de los profesionales y la calidad de los servicios?

Cómo se utilizan los $600,000,000 que se invierten anulamente en salud? Se supone que el 60% de la población depende de los servicios de salud que ofrece el estado. El gobierno apenas cuenta con $100 por cabeza para proveer servicios de salud a la población de escasos recursos económicos, mientras que el gasto promedio por cabeza para Puerto Rico es de $200 (y de $450 en los Estados Unidos). Deben llevarse a cabo estudios que relacionan

financiamiento con disponibilidad de servicios, tanto en lo que respecta a cantidad, como a calidad.

Existen muy pocos datos (contrario a la opinión general) que expliquen la falta de colaboración entre los sectores públicos y privados. Se requiere una mayor cantidad de información al respecto, si ha de mejorar la situación. El impacto de programas federales tales como Medicare, Medicaid, Planificación de Salud y los Cupones de Alimentos, debe ser evaluado.

Se adoptan nuevos esquemas (raras veces se descartan) sin la evaluación pertinente, como por ejemplo, la idea del centro de salud, la regionalizacion, la libre selección en el sector público, la separación de los servicios de adicción a drogas y alcoholismo de los de salud mental y asistencia médico hospitalaria. Cuáles han sido las ventajas y desventajas de estas acciones? Son realmente necesarias las camas sub-utilizadas de los centros de salud? Podría dársele mejor uso a estas?

"En Puerto Rico donde el 60% de la población utiliza los servicios de salud que presta el estado, la planificación de estos debe y tiene que ser diferente a la que existe en los Estados Unidos".

Al discutir la ponencia del doctor Arbona, el Dr. Angel Pacheco hizo las siguientes observaciones:

1. Los puertorriqueños encuentran que la calidad de la vida, a pesar del crecimiento económico, ha sufrido deterioro.
2. Segun se multiplican las estructuras de servicios gubernamentales, crece la insatisfacción de la comunidad.
3. El constante crecimiento tenológico aprentemente ha hecho que los servidores de salud se tornen impersonales y presten poca consideración a los aspectos humanos del paciente.
4. La sociedad puertorriqueña percibe haber experimentado un aumento en el número de alcohólicos, adictos a drogas, criminales y enfermos mentales, concurrentemente con esta percepción se ha desarrollado una tendencia a descansar en el médico y los proveedores de servicios de salud para la rehabilitación de estas personas "enfermas".
5. La preponderancia del médico en la prestación de servicios de salud ha dado lugar a una carencia casi total de información respecto al papel que desempeñan curanderos y espiritistas en la prestación de servicios relacionados con la salud.

El doctor Pacheco expresó que la fragmentación en la investigación de servicios de salud en Puerto Rico ha sido un obstáculo para lograr mayor influencia en la política pública del país. Hizo constar que la celebración de la Conferencia de Investigación de Servicios de Salud en Puerto Rico ha sido un primer paso significativo en la dirección de idear medios por los cuales se fortalezcan los esfuerzos colaborativos entre investigadores y elaboradores de política pública. Sugirió que se continue celebrando este tipo de conferencia y que concurrentemente se cree un comité de representantes de instituciones de servicios de salud cuya encomienda sea darle seguimiento a las recomendaciones de esta conferencia.

Respecto a los sistemas de información, el doctor Pacheco recalcó la utilidad de la Muestra Básica como "la única y más importante fuente de infomación sobre salud". Señaló además, la necesidad de adiestrar a los elaboradores de la política pública y a los investigadores en el uso de la infomación disponible. Sugirio la Escuela de Salud Pública para la ubicación de análisis y posteriormente de la información. Señalo que en Puerto Rico . . . "quizás será necesario invocar la Ley de Libertad de Información para poder conocer los resultados de algunas de las investigaciones que se llevan a cabo".

El doctor Pacheo se solidarizó con la opinión del doctor Arbona respecto a la necesidad de llevar a cabo investigación sobre la percepción de los usuarios respecto a sus necesidades de salud, así como sobre los puntos de vista de éstos respecto a como el sistema falla en satisfacer sus necesidades. El doctor Pacheco mencionó que este ha sido sin lugar a dudas, un aspecto de investigación muy descuidado del país.

El Dr. Joaqúin Villamil ofreció unas guías para elaborar una política de servicios de salud para tigación en Servicios de Salud en Puerto Rico.

El rápido desarrollo experimentado al pasar de una economía agrícola tradicional a una industrial compleja, ha dado lugar a que se haya adoptado en Puerto Rico una tecnología importada de los Estados Unidos. Puerto Rico es una isla pequeña y muy densamente poblada, no una nación de gran extensión geográfica. Tiene la necesidad de elaborar una política de servicios de salud para largo plazo que sea explícita y detallada y esté basada en una sólida capacidad investigativa . . . "gran parte del impacto negativo de la intervención norteamerica en Puerto Rico ha ocurrido precisamente porque ha habido en el sector salud muy poco sentido de dirección y la carencia de una política que no sea la determinada por la disponibilidad de fondos federales, lo cual en la mayor parte de las veces genera fragmentación en el sistema de salud".

El doctor Villamil señaló que no existe en Puerto Rico una tradición de dedicación a la investigación en servicios de salud . . . "la actitud parece ser una de que la investigación es simplemente un lujo, algo innecesario". Aún así, "el Departmento de Salud desarrolló hace algún tiempo un valioso intrumento para ayudar en la formulación de política pública de salud, la Muestra Básica. Esta ha tenido una existencia bastante irregular prin-

cipalmente durante los últimos años en que ha sido sub utilizada. La Muestra Básica tiene que ser uno de los componentes fundamentales de un sistema de investigación en servicios de salud a pesar de que para ser de mayor utilidad requeriría cambios tanto en su estructura como en la organización de la unidad donde se encuentra ubicada." "Cualquier política de investigación en servicios de salud para Puerto Rico requerirá una continua evaluación de programas de salud privados y gubernamentales". El doctor Villamil confía . . . "en que la Muestra Básica y el nuevo sistema de información habrán de facilitar considerablemente esta tarea".

El doctor Villamil visualiza para Puerto Rico . . . "el desarrollo eventual de una organización parecida al Consejo Británico de Investigación Médica de manera que pueda desasociarse la investigación de las burocracias acaparadoras, pero aún así puede este Consejo trabajar con ellas para responder a las necesidades del sector salud". Expresó que considera necesario que Puerto Rico genere sus propios fondos para propósitos de investigación de manera que se reduzca la dependencia de fondos federales que interfiera con nuestras prioridades de investigación. Considera que se debe establecer un Consejo de Investigación en Salud cuasi-autónomo compuesto por representantes del Departamento de Salud, del Recinto de Ciencias Médicas y de otras agencias relacionadas con salud.

Finalmente el doctor Villamil dijo lo siguiente: "Puerto Rico ha sido utilizado como laboratorio por demasiado tiempo; gran parte de la investigación realizada ha tenido poco que ver con el bienestar de nuestro pueblo y sí con las necesidades e intereses particulares de los investigadores . . . Es tiempo ya de que comencemos a depender de nuestros propios recursos y a desarrollar los recursos humanos para llevar a cabo la investigación necesaria".

Los reactores a la estrategia propuesta por el doctor Villamil fueron;

1. La licenciada Ada Pérez de Castillo—Directora de la Agencia de Sistemas de salud de Puerto Rico;
2. Dr. Luis Miranda—Secretario Auxiliar de Salud para Planificación, del Departamento de Salud de Puerto Rico;
3. Sr. Raul Muñoz—representante de la corporación privada Estudios Sociales y de Salud, Inc.

La licenciada Pérez de Castillo manifestó que la organización que dirige tiene entre sus funciones la elaboración de planes basados en análisis de la información obtenida de nuestra realidad puertorriqueña. La Agencia de Sistemas de Salud identificará y señalará aquellas áreas de investigación que sean requeridas para el proceso de planeamiento. Respecto a la recomendación del doctor Villamil a los efectos de crear un Consejo de Investigaciones en Salud, la licenciada Pérez levantó los siguientes puntos:

—¿Quién establecería las prioridades sobre asuntos a ser investigados?
—¿Cuál sería la representación de los consumidores en este Consejo? . . . ya que en última instancia serán ellos los más afectados por las prioridades que se establezcan.
—¿Cuál sería la composición del Consejo?
—¿Cómo serán financiadas sus actividades? La licenciada Pérez manifestó que en vista de las limitaciones de fondos estatales, a su juicio sería imposible desasociarse de los fondos federales (que pueden afectar las prioridades).
—¿De qué forma se puede controlar la calidad de la investigación si esta es delegada?
—¿Qué autoridad tendría el Consejo para implementar recomendaciones?

La licenciada Pérez recomendó que se considere a la Agencia de Sistemas de Salud como un participante activo en las etapas de planeamiento y ejuecución de la investigación. De igual manera urgió para que el Plan de Sistemas de Salud sea utilizado como referencia para determinar las áreas específicas de investigación.

El doctor Miranda, Secretario Auxiliar de Salud para Planificación, favoreció un enfoque menos estructurado para llevar a cabo investigación. Apuntó que el Departamento de Salud y el Recinto de Ciencias Médicas no comparten necesariamente las mismas inquietudes o filosofías respecto a la investigación. Crear un Consejo sólo lograría añadir un tercer miembro receloso sobre su propia supervivencia a las negociaciones entre el Departamento y el Recinto. El Departamento de Servicios Contra la Adicción sería un cuarto miembro. El doctor Miranda manifestó que el Ricinto de Ciencias Médicas debe asumir el liderato y otorgarle en el proceso de determinar prioridades, amplia participación al Departamento de Salud y a otras instituciones interesadas. Expresó que el Departmento de Salud carece de suficiente personal con el peritaje necesario. Este hecho ha afectado la labor de la Muestra Básica, ya que ésta recopila anualmente una gran cantidad de datos, pero no produce el análisis y los informes respecto a estos.

El doctor Miranda recomendó una recopilación de los resultados de investigaciones previas. Sugirió la agrupación de personas (sin crear una oficina en particular) represeando las distintas entidades e instituciones que tienen interés en la investigación en el Estado Libre Asociado.

El Sr. Raúl Muñoz con 35 años de experiencia en el servicio público, en representación de una firma consultiva que lleva a cabo estudios evaluativos y de planificación para instituciones públicas y privadas del país, describió la organiza-

ción original de la Muestra Básica según fuera establecida durante la incumbencia del doctor Arbona como Secretario de Salud. Un Consejo Asesor compuesto por directores de programas del Departamento de Salud y de la Escuela de Salud Pública establecía las prioridades para los asuntos a ser investigados. La Muestra Básica tenía un enfoque operacional consistente en dos fases: de recopilación continua de datos sobre morbilidad y asistencia médica prestada; encuestas especiales llevadas a cabo trimestalmente sobre problemas o asuntos prioritarios determinado por el Consejo Asesor.

Muñoz advirtió sobre la posibilidad de que prioridades establecidas por grupos elitistas profesionales difieran de aquellas determinadas por el ciudadano promedio. Como ejemplo expuso la di. visión de servicios de salud entre públicos y privados, lo cual a su juicio "esta siendo constantemente negado por la congruencia en la percepción de lo que está disponible y lo que es necesario". Coincidió con la posición del doctor Haggerty respecto al énfasis en la investigación evaluativa como forma de relacionar el desarrollo de políticas. Se refirió el señor Muñoz a un tipo de investigación que no fue mencionado por el doctor Villamil aunque sí por el doctor Arbona, como investigación anticipatoria, conducida como preludio para establecer política.

El Señor Muñoz opinó que: "No se está llevando a cabo en Puerto Rico investigación de buena calidad en suficiente cantidad . . . la investigación que se está llevando a cabo es inadecuada en términos de la metodología y la sofisticación que conceptualimente debe tener". En su opinión . . . "la razón principal se debe a que carecemos del personal para llevar a cabo investigación de alto nivel". Poseemos sin embargo, personal que puede llevar a cabo investigación en los niveles intermedios e inferior de complejidad y sofisticación". Hemos sido muy lentos en la preparación del personal capacitado para llevar a cabo investigación sofisticada". Respecto a financiamiento se expresó en los siguientes términos: "si en Puerto Rico se designara para investigación, la mitad del uno por ciento de las asignaciones para la ejecución de programas, tendríamos suficiente cantidad de fondos para iniciar una buena base de investigación, por lo menos en los departamentos más grandes, Instrucción y Salud".Para resumir, el señor Muñoz señaló que: "existen los elementos necesarios para el establecimiento del núcleo inicial para un Centro de Investigación en Servicios de Salud en Puerto Rico, a saber: un ambiente interdisciplinario relacionado con la Universidad y con programas operacionales; la ley administrada por la Agencia de Sistemas de Salud quien a su vez posee los recursos, el poder y la reglamentación federal.

Al finalizar las discusiones de la conferencia se le planteó a los participantes una agenda para investigación en servicios de salud. Dicha agenda fue sometida por Jack Elinson.

Los siguientes puntos fueron sometidos para consideración: ¿Cómo puede Puerto Rico utilizar al máximo los recursos existentes con el mínimo de nuevas fuentes de ayuda? ¿Qué condiciones en Puerto Rico facilitan la investigación y qué factores aparentan ser obstáculos? ¿Cómo podrían evaluarse los logros alcanzados en Puerto Rico en la investigación de servicios de salud tanto a corto como a largo plazo? Como un aso inicial en la agenda propuesta, se recomendó crear una Oficina de Investigación en Servicios de Salud cuyas funciones abarcarían: realizar un invenatrio de toda la investigación en servicios de salud hecha en Puerto Rico en los últimos 25 años, y clasificarla de acuerdo con la relevancia respecto a los asuntos de política en la investigación de la salud; mantener un archivo de resultados en investigación de servicios de salud, junto con documentación que permita a lo s investigadores evaluar la calidad del trabajo; proveer la capacidad técnica analítica y de información para la Muestra Básica de Puerto Rico; servir de enlace entre el Recinto de Ciencias Médicas y el Departamento de Salud, de modo que pueda incorporásele periódicamente problemas de investigación a la Muestra Básica, a la vez que se estimule y enseñe a la facultad respecto a cómo hacer uso de esta.

La agenda sometida incluirá además política institucional y acción, por parte de la Universidad, encaminada a proveer incentivos para lograr que la facultad se envuelva en la investigación de servicios de salud, ya sea mediante la reducción de sus obligaciones docentes, mediante compensación adicional o una combinación de ambas. A manera de comienzo deben llevarse a cabo estudios de investigación que sean relativamente discretos y claramente pertinentes respecto a establecer o modificar la política pública. Los investigadores podrían capitalizar en los sistemas de información organizados para propósitos administrativos.

En lo que respecta a los arreglos y facilidades para la investigación, deben de considerarse las distintas capacidades y objetivos de las facultades universitarias, así como los departamentos gubernamentales e instituciones privadas. Debe explorarse la posibilidad de colaboración con uno o más de los centros de investigación universitarios patrocinados por el Centro Nacional de Investigación en Servicios de Salud.

Finalmente dirigiendo su enfoque hacia el futuro, Puerto Rico debe estimular a sus más prometedores investigadores a proseguir estudios en investigación de servicios de salud. Una estrategia a seguir en relación a lo arriba mencionado sería hacer uso de la Ley de Personal intergubernamental (Intergovernmental Personnel Act) la cual facilita la ubicación provisional de

facultad universitaria en las distintas agencias federales envueltas en la investigación de servicios de salud.

La participación de representantes del gobierno y de las instituciones académicas en esta conferencia ha promovido el desarrollo de un clima favorable para generar un mayor esfuerzo en la investigación de servicios de salud de Puerto Rico.

El Secretario de Salud de Puerto Rico, Dr. Jaime Rivera Dueño, enfatizó la importancia de garantizar la relevancia de la investigación en la atención de problemas que requieren soluciones a corto plazo. Añadió que deben reconocerse las diferencias socio-culturales que existen entre Puerto Rico y lost Estados Unidos expecialmente en el área de la salud mental. A su juicio deben establecerse las prioridades en base a las necesidades reales de las personas. Se ha hecho much labor de Investigación en Puerto Rico que en la opinión del Secretario Rivera Dueño, debe de desengavetarse, desempolvarse, analizarse y evaluarse para ver si es de utilidad inmediata.

Doctor Rosenthal comentó sobre la propuesta del doctor Elinson tal como fueron desarrollados durante la conferencia. No obstante, apuntó el doctor Rosenthal, que los usuarios de la investigación, que son los que tienen las responsabilidad de "establecer la relevancia de los asuntos" no son todos forjadores de política publica sino que también se incluyen proveedores de servicios, grupos de consumidores y todos aquellos que tienen preocupación por las ejecutorias y la operación del sistema de servicios de salud.

En segundo lugar señaló el doctor Rosenthal que "en el curso de la investigación sistemática a veces los investigadores desarrollan asuntos que se convierten en asuntos de mayor interés general que el original . . . un sistema saludable contiene un proceso constante de averiguación sistemática, de reto, evaluación y verificación de los cambios que se suscitan, y de hacerlos disponibles de tal manera que las personas que operen el sistema puedan entenderlos y hacer buen uso de esos conocimientos".

Refiriéndose a la utilidad de la Muestra Básica de Puerto Rico, apuntó el doctor Rosenthal que esto no es exclusivo de Puerto Rico, ya que el propio Centro (N.C.H.S.R.) ha iniciado una encuesta prospectiva para llevarse a cabo cada doce meses, con 11,500 familias para identificar sus fuentes de atención de la salud, la naturaleza de los gastos, las fuentes de subvención para esas inversiones y los patrones de utilización. "El impacto de los resultados de este estudio sobre política pública puede ser instantáneo".

Señaló también el doctor Rosenthal que "Puerto Rico ha tenido más éxito en captar el interés de los investigadores de servicios de salud, que muchos otros sitios en los Estados Unidos apenas investigados.

Concluyó con la siguiente aservación: "Espero con placer anticipado que continue la expansión y se refuerce el compromiso que con ustedes ha contraido el Centro Nacional para Investigación en Servicios de Salud para ayudarles en su esfuerzo tanto aquí, como en otros lugares".

"Haremos todo lo que esté a nuestro alcance para lograr que sea este esfuerzo una demostración exitosa de la naturaleza esencial de la investigación en un mundo que está eomprometido a prestar la más alto calidad en los servicios de salud."

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Health Services Policy Issues in Puerto Rico

by Jorge J. Fernández Pabón*

Before I proceed with this presentation, let me welcome all of you to this Conference on behalf of the Medical Sciences Campus and the University of Puerto Rico. To the contributors, our most sincere appreciation for their time and efforts toward the accomplishment of this activity. To the other participants, an invitation to take advantage of this opportunity which will help us bring together the vast variety of ideas and suggestions that must be considered in the definition of health services research needs in Puerto Rico. We hope that this Conference will be of significant benefit for the future of our country.

Although outside of the scope of this paper, I would like to mention that at the Medical Sciences Campus we have established two principal criteria for the setting of research priorities: in the first place, research that deals with pertinent and relevant problems in Puerto Rico; and secondly, the selection of those topics for which our setting is particularly suitable. In the case of health services research, the two criteria are met to a very significant degree; not only is research in this area widely recognized as an urgent need in order to be able to apply corrective measures to our system of health care, but also, because of the fact that in Puerto Rico, in contrast to the United States, the public sector has been extensively involved in the delivery of health care. There are special situations which lend themselves to the kinds of research that may be useful outside of our immediate confines, thus affording us the opportunity to make a universal contribution, as it befits the University.

Hence, these are the reasons why the Medical Science Campus sought the assistance of the Health Resources Administration to conduct this Conference as a prelude to the establishment of a Health Services Research Institute, which will encourage and provide a comprehensive orientation to health services research activities in the Campus and hopefully, through collaborative mechanisms, to all such activities in Puerto Rico.

In this presentation, I will attempt to meet the following objectives. First, I will provide you with a sketch or overview of the development of health services in Puerto Rico pointing out the peculiarities of the "system". Then, fundamental and immediate issues will be identified and discussed and some critical comments will be introduced with the intention of eliciting discussion and elucidation on an individual basis. Deliberately, I wil' attempt to avoid definitive positions or conclusions on the issues, but hopefully they will be viewed in the light of present circumstances with an appropriate perspective of time and substance.

My subject today presents some special difficulties and challenges. Policy and issue, the two key terms in the title of this presentation are very popular on our Island. Because of their constant and varied use, these two words assume different meanings under different circumstances and are modified as rapidly as time passes by. Indeed, neither one has an adequate translation into the Spanish language so that we commonly use the English word even when we speak in our native tongue. The word policy is usually translated as "política" which, as may be surmised, can be easily confused with politics; as in fact it most frequently happens. As for issue, every matter of public interest is always at "issue" at every moment on this Island.

As the most important initial step in research, it is necessary to state an appropriate operational definition for these two terms. Webster's Seventh New Collegiate Dictionary defines policy as "a definite course or methods of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions." This definition presupposes that pertinent conditions have been taken into consideration in the identification of alternatives before the selected course of action or method for the determination of decisions is established. Therefore, an appropriately defined policy requires a description of the conditions and of the alternatives that were considered and discarded in order that the selected procedure for arriving at decisions is viewed in its proper perspective. The definition does not tell us what the components of the method should be; that is, what are the essential

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steps that must be taken to reach a decision which is consistent with the prescribed policy. In public or company policy it is reasonable to expect that the method will lead to decisions that are reliable and consistent with respect to a set of principles that have been pre-established and recognized as valid and in accordance with a fundamental philosophy. In our society the principles of democratic government are the yardstick. But, we must recognize that even those are variously interpreted and applied in the light of different historical, cultural and even economic perspectives. For instance, I shall argue later on that one of the most important health policy issues in Puerto Rico is the conflict between our system of health care and the impositions of Federal legislation on account of the disharmony in philosophical perspectives; historically, culturally and economically. Thus, in fact, the interpretation and application of policy becomes an issue, because we lack an appropriate definition of the concept.

Perhaps this lengthy discourse contains too many philosophical connotations which to the scientific mind may seem to be irrelevant or a nuisance best ignored. But I submit that policy development and its ultimate implementation depend heavily on matters of principle of a philosophical nature as well as on reliable scientific data about the conditions to be dealt with.

An issue, for the purpose of this discussion, will refer to subjects that are controversial or which are often disputed. However, in this respect, we need to be selective in order to deal primarily with matters that are fundamental or that have a crucial bearing on the success or failure of health policy development and implementation.

The origin of health policy in Puerto Rico

Health policy in Puerto Rico, regardless of whether it has been explicitly stated or clearly understood, dates back to our national origin as a Spanish colonial development. Two principal and interrelated elements influenced that period: the church and the military, both in representation of the Crown, on whom everyone was at least emotionally dependent. Additionally, due to the comparatively scarce availability of local resources the island was also economically dependent on other countries. This condition of dependence gave rise to a strongly paternalistic government structure, as it befits church and military factors. Contrary to the pilgrims who came to settle in North America, the Spanish came to conquer and to extend the scope and influence of the Crown.

It is not surprising, then, that during the Spanish regime, municipal organization, rather than being a spontaneous development, was compulsory for each group of population of more that 1,000 inhabitants (1). The powers that were eventually reserved by the states in the development of the United States, were typical of the legally constituted municipalities in Puerto Rico. However, the relationship of the latter to the central government—dominated by the military and the church—had an inverse nature. Contrary to the tradition in the United States, where power emanates from the people (searching for freedom from oppression), in Puerto Rico, power originated from the Crown and molded local development structurally and functionally.

Nevertheless, conditions during the early periods encouraged the development of municipal services which included education and health. Local initiative and even some autonomy is evident from the beginning but under government auspices primarily, rather than on the more typical American (U.S.) tradition of private entrepreneurship.

Despite eventual attempts and some success for increased autonomy from the authority of the Crown, the mold for the structure and functional style of government had been set by the early influence.

The American take-over in 1898 did not appreciably change the situation. Changing lords, a military one for another, did not represent initially a truly fundamental change in philosophy. Indeed, there might have been more direct interest in power from the new "Crown" which being new at its imperialistic endeavors was bound to show more zest for it. In all fairness, there were two new elements that had some relatively significant influence from the beginning. On the one hand, American technological advances enhanced and accelerated the development of public works which in different ways had beneficial effects on public health. On the other hand, the missionary tradition which characterized the United States brought to our Island several pioneers in the health field who through their hard labor, found the solution to some of the most devastating health problems and contributed to the development of medical care programs.

Let me mention at least two names to substantiate this point: Dr. Bailey K. Ashford and more recently Dr. John Smith (Ryder Memorial Hospital).

During the first part of the century, the American presence in Puerto Rico has had relatively little influence in the delivery of personal health care. Most of the involvement (very much in keeping with national policy of delegating such matters to the states and the tradition of private enterprise) was at the collective level of public health measures. But the early Spanish influence prevailed at the municipal government level where publicly

supported hospitals and direct free medical care were usually available for the large masses of poor people. Of course, the quality and availability of these services left much to be desired, but they met the demand in the best possible way.

In 1937, the federal government, specifically through the Public Health Service, demonstrated a direct concern for health conditions and medical care in Puerto Rico. The Mountin report, "Illness and Medical Care in Puerto Rico," (2) surveyed the conditions and suggested courses of action which essentially called for more active insular government involvement, regionalization of hospital care, and urgent application of public health measures to curtail preventable and contagious diseases which were the main cause of death and illness on the Island.

Mountin's report undoubtedly provided the foundation for future health policy at the time. The call for expanded intervention by the Department of Health, not only in public health matters but also in the delivery of personal health care was evidently seized by our leaders who brought about what might be considered a revolution in health care and consequently one of the most successful stories of progress in the level of health of a people.

Economic growth, enhanced or propelled by—ironically—the effects of World War II, had much to do with the progress experienced during the middle third of the century. However, we cannot ignore the tremendous influence of our outstanding leaders who took advantage of those conditions to orchestrate a combined effort of policy development and implementation with exhaustive utilization of old and new resources inspired by historically unprecedented amounts of enthusiasm, devotion and selfconfidence.

I will not cite statistics to demonstrate the progress achieved. This is by now a boring story. Indeed, we often take it for granted and not infrequently even suspect that its repetition is intended to provide a rationalization of current problems. However, it is appropriate at this moment to refer to that period of search for some of the causes or for an adequate explanation of the present situation.

Three main elements deserve our attention. The Second World War brought the United States and Puerto Rico closer together in many aspects. A good number of our men joined the armed forces and many mainlanders were brought to the Island for training. This situation helped Puerto Ricans and mainlanders to become much better acquainted with each other. At the same time, our economic condition improved gradually and continuously, thus raising the level of public expectations. An increased number of our people began to travel to the mainland in search for better opportunities. Among these, there was an important group of talented students who instead of choosing Spain—as used to be the case—for their medical education, now selected and entered the best medical schools in the United States. Upon their return to the Island they brought with them a new philosophy and higher aspirations, often beyond our local means. Simultaneously, with the flow of Federal economic help large amounts of money were made available primarily for the construction of health care facilities through the Hill-Burton Act and under its regulations.

These three elements: economic growth and the resulting rise in expectations, the change in the nature of medical education (represented also in our own medical school which was designed following the American model as a result of the insistence of the Medical Association that it be an accredited institution) and the availability of Federal funds, in the context of the historical background which I have attempted to outline, constitute the contour and at the same time the principal causes of controversy in the health services system in Puerto Rico.

The present system of health services in Puerto Rico

The present condition of the Puerto Rican system of health services deserves to be analyzed from two main perspectives.

From a functional point of view, a definite switch in operational procedure has taken place from municipal to central control of policy development and implementation. At the same time, increased attention is being given to the delivery of personal health care while the need for public health measures directed at infections and communicable diseases was reduced as the population acquired the characteristics of an economically developed society.

The increasing demand for direct medical care by the public brings about a great deal of stress on the delivery system leading to serious concern over the capability of its organizational and operational structure of meeting the challenge.

In 1962, Trussell and Arbona, in response to the concern of the Commonwealth Legislature for "what ought to be a long-term policy for the organization, financing and even distribution of medico-hospital services, as well as for the availability of facilities and personnel so that such services will be of the highest possible quality for our population as a whole," conducted an extensive series of studies on hospital and medical care in Puerto Rico.(1) Principal attention was given in this research project to the structure of the system and to the analysis of the resources which were available or needed to provide the necessary services. The principal recommendation called for the

regionalization of health services permitting a relative fiscal and functional autonomy in the administrative aspects of each region. For the most part, the recommendations for the structural development of a regionalized system have been implemented. Yet, the aspirations in terms of resources and functional autonomy have scarcely been reached. In spite of the infusion of Federal funds through Medicaid, Medicare, and other programs, the Health Department lacks the necessary financial resources to operate the vast array of facilities constructed primarily with the Hill-Burton funds. Concurrently, public dissatisfaction increases as the publicly financed and operated system of health care competes disadvantageously with the private sector which, encouraged by American tradition and by the policies of professional associations, evermore adamantly challenges the validity of the public system.

In the meantime, the poor continue to receive inadequate services and suffer adverse consequences because the resources are inequitably distributed. There is an urgent need to determine the relative efficiency of both sectors—public and private—in the light of the resources available to each, if for nothing else, to put things in proper perspective. It is unthinkable that anyone will dare to do anything about the distribution of financial resources even if he should find that they are being wasted on one side while badly needed on the other.

More recently, Federal policy has emphasized the tradition of pluralism, bringing also into the policy development the active participation of the consumer. Despite the fact that in many ways our Puerto Rican society practices and cherishes the democratic tradition, it still remains a highly structured community with a strong flavor of paternalism and monolithic operation of public services. Both, American tradition and Federal guidelines, tend to clash with this local reality. But the change is evident and people appear to be increasingly interested in matters that they formerly took for granted or tolerated stoically. If not yet the actions, the demands and denunciations are evidently becoming more plural.

The call for reform propelled by the preceding elements is further complicated by the growing costs and the inequities in terms of availability and quality of health services.

Politicking with health issues has not helped matters either. Bringing health issues into the political arena—as with any other issue of public interest—should be encouraged and welcomed in a democratic society. However, when matters are as complex and confused as the current state of health policy in Puerto Rico it is quite easy to even unintentionally mislead public opinion.

I venture to say that the proposed reforms contain nothing which can be considered substantially new. In fact, the current claim is that what we need to do is to give our present knowledge and experience a practical effect by concrete measures. But, somehow we always seem to reach a dead end.

The aspirations of the proposed reforms are primarily addressed at equitable accessibility to quality health services through the rational use of resources, so that costs can be kept within tolerable limits. There are discrepancies and sometimes marked differences of opinion regarding the ways and means of obtaining increased financial support and also with respect to the modes of bringing about and reaping the benefits of participation.

Lack of understanding of the elements that define the context, the confusion which results from irresponsible discussion of the fundamental issues and serious differences of opinion concerning the financing and operation of the health care system in Puerto Rico have practically stagnated progress in recent years. Sometimes a sense of desperation is perceived and is manifested in the form of simplistic solutions to complex situations, often compounding them further. Thus, we hear calls for construction of more hospitals, education of more physicians, expansion of preventive programs, education of the public and many other good ideas which outside the context of a comprehensive policy usually do not approximate the expected results. Frustration is frequently present, not only among the public at large, but also among health professionals who devote their time to public service.

Outstanding policy issues

The outstanding issues regarding health policy in Puerto Rico may be categorized under three main headings: (1) those concerned with policy making; (2) those related to organization and administration of the health services; and (3) those related to the operation and utilization of the services.

With respect to the process of policy development, the principal concerns are related to the process of participation and to the resulting priorities established. The degree of participation and relative authority of the different levels of government—municipal, commonwealth, and federal—represents a traditional battle which, as demonstrated previously, in Puerto Rico is further compounded by the contrasting philosophies which result on account of the differences in historical and cultural development between the island and the mainland. Currently, this area of controversy is complicated by the increased interest in the process of participation demonstrated by consumers and providers. Considering that the latter two groups are themselves varied, representing

the composite of special interests groups in each category, it is not surprising to find that serious difficulties are encountered in the attempt to meet the clamor or participation and also that very often the persons in charge of the administration of health services throw their hands up in dismay as they face the futility of their efforts. One important area of study is the determination of the degrees and levels of participation that are best suited to provide for effective responsiveness to public need.

When it comes to priorities there is often apparent agreement at first sight. Everyone favors prevention—a favorite catch word—and primary care, but they do so only until the need for specialized services arises or until the physicians are asked to move to underserved areas or until the politicians are told that there is no need for more hospital beds in their home town. Priorities become easily distorted and misplaced as soon as special interests enter the picture. Priority setting is also complicated by the limitations in financial resources which some times are only sufficient to meet urgent needs thus precluding the possibility of orderly systematic utilization.

An increasingly visible issue in the organization and administration of health services in Puerto Rico is the clash between the public and private sectors. In addition to their conflicting claims regarding effectiveness and quality, there is the pervading specter of social injustice that accrues from the differential resources available to each sector. Federal legislation and policy, responsive to American tradition and to the A.M.A., has complicated matters as they often support the more wasteful private sector at the expense of the public sector.

Related to the organization of health services under public vs. private sponsorship is the structure of the system and the relative degree of control assigned to the central and local components. The public sector is regionalized geographically and by levels of care. Although the process of regionalization may not have reached its full development, there is, in contrast to the private sector, a relatively well-organized system. But here again, the influence of conflicting philosophies bears upon the controversy as the organized medical profession tends to favor the private sector following the American tradition of entrepeneurship in the health services.

Health policy issues related to the operation and utilization of the services tend to be more pragmatic. In Puerto Rico, as we have mentioned before, there exists a strong tradition of paternalism which accounts, not only for the common practice of centralized policy development, but also for a seemingly excessive degree of tolerance. Public services are made available free of charge because this is considered to be the proper thing to do. And it is the government's responsibility to satisfy all the needs and aspirations of the public even if they may be false and unreal and if the resources are insufficient. This tendency to attempt to be all things to all people often jams the operation of service systems. A lack of order and discipline, coupled with the common expectation of special privileges, leads to failures in the utilization of resources as the proper routes are bypassed and coordination mechanisms are broken down. There are serious conflicts between planners and public representatives with regard to construction of facilities, education of health professionals and the availability of specialized services, which are directly related to different conceptions of the needs and aspirations of the people. This issue will most likely last forever, but, in the light of limited or shrinking financial resources there is an urgent need for a meeting of the minds, lest we may witness the economic disaster of the health services.

In conclusion, one might wish that this conference would bring into focus the most fundamental and urgent areas of concern in the delivery of health services in Puerto Rico, within the proper perspective in time, dimension, and complexity needed to postulate pertinent researchable hypotheses. The search for truth must be free from prejudice, oversimplification and narrow-mindedness if it is to yield useful results. Otherwise, we shall only serve the master of accommodation and expediency.

References

(1) Trussell, R. E. and Arbona, G., *Medical and Hospital Care in* Puerto Rico, 1962, p. 117.

(2) Mountin, J. W., Pennell, E., Flook, E. "Illness and Medical Care in Puerto Rico" Public Health Bulletin No. 237, June 1937. U.S. Government Printing Office, Washington, D.C.

Policy Issues And Health Services Research Priorities in Puerto Rico

by David Mechanic*

The Commonwealth of Puerto Rico has an impressive tradition in the development and delivery of health care services that can serve as the foundation for an equitable, effective, and efficient system of health services in the future. Like every other modern nation, Puerto Rico faces a series of problems that arise from the rapid growth of medical knowledge and technology, from rising expectations of its people for more and better medical care, and from realistic economic limitations on what Puerto Rico can expend on medical needs which are in competition with many other pressing problems of the Puerto Rican population. Like every other nation, it must develop the means to use its medical dollars to achieve the best possible results, to distribute its medical services more equitably and in closer relationship to the medical care needs of its citizens, and to organize its health personnel, facilities, and programs in the most rational and workable fashion. A major function of health services research is to help define the issues, provide the data, outline the alternatives, and direct action toward the most effective mechanisms to achieve desired goals.

In attempting to improve health care services, most countries in the world face certain common problems. First, they must decide how much of their national wealth should be expended for medical care needs and how it should be divided among preventive programs, acute care, and services and rehabilitation for chronic problems. Second, confronting the growth of specialization and subspecialization that has accompanied the development of knowledge and technology, they must devise policies that cope with the inevitable fragmentation of services and develop means to insure a balance between preventive, primary, secondary, and tertiary care facilities and personnel. There is a growing appreciation that this must be done through a better understanding of the needs of the entire population and not only of those who use particular services, through better epidemiological intelligence concerning the occurrence of illnesses among the people and their effects on functioning and vitality, and through greater regionalization and planning for the delivery of services. This involves such decisions as the types of health manpower to be trained, the best way to organize them so as to coordinate their efforts, and the best way to distribute health manpower in relationship to what is known about population needs and the occurrence of illness and disability. Third, with the realization that most demands on the medical care system are relatively simple, most countries are attempting to rethink the function and status of the primary care sector and how its services should be provided. Whether they think in terms of internists and pediatricans, family physicians, nurse practitioners, or primary care teams, the underlying issue is the same: what is the best form of organization for first contact care and continuity in services for the great majority of illness problems. Such medical problems require neither very expensive facilities nor very complex services. A proper resolution of this issue demands planning for both professional and ancillary personnel, regional coordination among primary, secondary, and tertiary facilities. and an emphasis on the needs of defined populations. Finally, all modern systems of care are struggling with the alternatives for best insuring that utilization, cost, and quality are effectively monitored and controlled. This involves developing professional, financial, and managerial mechanisms that sharpen understanding of the performance of the health services and facilitate improvement while avoiding burdensome and expensive bureaucratic procedures.

Compared with many other countries, Puerto Rico is in a relatively favorable position from an organizational standpoint. Puerto Rico has a major commitment for the delivery of services through the public sector and a tradition of public organization to meet medical care needs. Moreover, the Commonwealth has made a major investment in providing a framework of public facilities and regional development that needs strengthening but is essentially already in place. The basic issues, thus, for health services research are how to strengthen these commitments effectively and how to use the present funding and any new monies

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that become available to enhance the health status of Puerto Ricans.

Health services is, of course, a very complex industry encompassing issues and problems from a very wide variety of fields including epidemiology and biostatistics, the behavioral sciences, engineering, operations research, and the administrative disciplines. There are unlimited questions that can be posed and almost an infinite number of investigations that can be launched. Realistically, however, funds for health services research in Puerto Rico are likely to be limited, and only very few of the possibilities can be studied in any real depth. Thus the priorities established in health services research are likely to be especially important in determining the degree of interplay between such investigation and the workings of the health care system.

On the mainland, the National Center for Health Services Research has had to face a similar problem of how to allocate a small and shrinking research budget among many competing research proposals. Although realizing that there is not firm agreement on criteria and that a variety of inputs are necessary to reach decisions, they have also formulated some questions that can be asked about any proposal, and I think they are reasonable criteria if not applied too rigidly. To paraphrase the most important questions, they are as follows:

1. Will the information obtained still be useful when the study is completed?
2. Is the study a natural experiment that cannot be undertaken at a later point in time?
3. Are the results likely to lead to action when they become available?
4. Will research suggest policy options that will have a significant impact?
5. Will the research yield useful data that can be used for important purposes beyond the study?
6. Is a methodology likely to be developed that allows the study to be carried out effectively?
7. Are qualified researchers available to carry out the study?
8. Will those being studied cooperate in the study?

In general, these criteria are based on the more general assumption that "problems which affect the allocation of substantial resources, which affect the health of a large segment of the population, and which command growing legislative interest would seem to be obvious candidates." (National Center for Health Services Research, *Summary of Grants and Contracts Active on June 30, 1975.*)

The application of these criteria required considerable judgment, and the answers are not always obvious. It is frequently difficult to anticipate the political process, even in the short run, and priorities sometimes change more quickly than we expect. Thus what may seem to be irrelevant to policy at some earlier point may turn out to be crucial a few years later. If the criteria I have just specified are applied too rigidly, they reinforce a tendency to support efforts that in the long run may be less valuable than investigations that take a broad view and deal with more generic issues relevant to the organization of services and the provision of care. Moreover, it has been my experience that although policy makers are often demanding of a quick answer responsive to what they perceive as the pressing needs of the moment, many of the more fundamental issues persist, and the same problems and questions often recur year after year. Thus, it is frequently productive to take a long range view and to provide ample support for studies that deal with tougher but more embracing issues.

As an example, consider the question of cost containment. Everywhere in the world increasing costs of medical care pose serious problems for governments that have assumed growing responsibility for paying for medical care. Moreover, the increased costs of third-party coverage in the nongovernment sector impose heavy burdens on industry and limit greatly the ability of unions to bargain for other wage and fringe benefits. The problem is not transitory; we have every reason to believe that it will continue for a long time to come, and in all likelihood it will become more serious before we achieve any effective controls. To the policymaker the most salient aspect of the problem is the immediate situation. He seeks mechanisms that will allow some control over increased use and inflated costs. From a short-run perspective the health services researcher in this area may study such problems as the best ways to reimburse hospitals to provide incentives for efficiency, evaluation of prospective and retrospective utilization review to assess savings achieved if any, the impact of the introduction of a computerized billing system in capturing greater third-party reimbursement, the effect of second opinions as to the need for surgery on the rate of surgical intervention, the economies achieved by using physician substitutes such as physician assistants and nurse practitioners, and the effects of group practice on economy of scale and other efficiences. There are almost an infinite number of studies that can be undertaken that deal with one or another aspect of the cost problem, and these studies can be initiated in every component of the health sector. Such studies are often favored because of their practicality. If the innovations are sucessful they can be implemented; the changes involved require no fundamental reorganization of health services, and these mechanisms usually do not seriously threaten existing economic, political, or professional interests. Such studies may contribute to cost containment at the margins, which is important, but they rarely aim at the fun-

damental problems that contribute most basically to the cost issue in the first place.

There is, however, a second approach to the issue of cost containment. This approach focuses on the major factors that contribute to the cost crisis in health care. It does so with full awareness that these targets are not easy to modify and that they involve strong and entrenched interests. The assumption, however, is that over the long range good policy comes from understanding clearly the basic forces leading to the cost crisis, and that a serious solution will require that these issues be faced squarely at some time in the future. The health services researcher who works on such problems appreciates that in all likelihood there will be no immediate direct application of his findings because of social and political barriers, but in the longer run he is contributing to a climate of understanding that will lead future policymakers to think about the problem somewhat differently. As the marginal solutions fail year after year, the probability increases that the balance of political forces will change and interventions that seemed unrealistic just a few years earlier begin to get serious consideration.

Charles Lewis, Rashi Fein, and I recently published a book entitled *A Right to Health*. In this volume we evaluate various Federal efforts made in the 1960s to increase access to medical care. What one discovers is that policy efforts usually begin at the margins, hoping to achieve change without confronting important political and professional interests. However, as these efforts prove unsuccessful and as public dissatisfaction continues, subsequent policies take on a more forceful character and more directed at the central target. For example, in the case of professional manpower legislation, the Federal government saw the problem of the maldistribution of physicians as simply a matter of numbers. It was assumed that if the supply of physicians increased, the market would redistribute physicians; and such incentives as loan forgiveness or the initiation of new specialties like family medicine or the development of rural preceptorships would achieve both a better geographic distribution and a more appropriate balance between primary and specialty care. Despite large Federal investments, however, the desired results were not achieved. Each succeeding Congress has shown a greater propensity to take more forceful action, and the most recent manpower legislation goes beyond earlier measures in attempting to affect distribution. It is clear that should these measures fail, even more forceful alternatives will receive consideration, as in the Kennedy proposal for required service of all medical graduates or in the proposal by Senator Beall previously passed in the Senate that tied availability of capitation funds to the reservation of places in medical school for students willing to assume a service commitment upon graduation. In short, what is possible does change, and it is prudent to direct attention not only to research that seems immediately practical, but also to the issues that may emerge in the not-too-distant future.

Consider again the issue of cost containment. Although the practicality of the research is more precarious, it is important to give attention to a wide range of possible noneconomic rationing devices for a system premised on the total elimination of economic barriers. In the American context most attention has been devoted to varying schedules of deductibles and coinsurance, but it is equally important to assess accurately the consequences of such rationing devices as controlled referral through a primary care physician, the impact of capitation payment and fixed prospective budgeting, and controlled inputs of beds, specialists, and other resources relative to fixed geographic populations. Although the implementation of such knowledge is less certain, the fact is that if we move in these directions we do so with much less experience, and it is here that we particularly need hard research data. While various intuitive theories are commonly held as to anticipated results of adopting such cost control procedures, such intuitive theories are aften wrong when tested in real contexts.

Consider the example of the widely held assumption that unnecessary hospitalizations and waste in resources were due to the structure of insurance policies that paid for procedures in the hospital but not in the ambulatory context. It was the conventional wisdom in HEW and elsewhere that the expansion of benefits to the ambulatory context would reduce such waste and associated costs because physicians would do in their office many of the procedures for which patients were hospitalized. Contrary to such wisdom, however, empirical studies uniformly disclosed that simply extending the range of benefits without other controls in the system increased ambulatory utilization a great deal and slightly increased the utilization of the hospital as well. In short, what seemed so obvious to almost everyone turned out to be incorrect and the theory a poor basis for social policy. In contrast, when ambulatory benefits were increased in contexts where beds were more scarce or incentives for hospitalization were not present, as in many prepaid group practices, increases in ambulatory care utilization could go hand in hand with reductions in hospital use.

In the case of Puerto Rico it would seem especially prudent to develop a mix of health care services research not only that addresses many of the very practical health services issues of the moment, but also that anticipates more complex policy options in the future as Puerto Rico moves toward an effective universal program of health care. Such long-range planning is especially im-

portant in Puerto Rico because its structure of services and many of its health services traditions are different from those on the mainland. Although Puerto Rico will be greatly affected by any national health insurance program enacted into law, it is likely to have some options as to the way it fits into any such scheme. If Puerto Rico is to take advantage of such opportunity, it must have good data on the nature of the problems its health services face and the types of alignments with the United States Federal structure that would most facilitate improved care and more effective administrative structures. It must also have available the information that makes its argument in a credible fashion to Federal officials and the appropriate Congressional committees. Much of the health services research carried out on the mainland will not be applicable to Puerto Rico's form of medical organization and special problems, and thus there is need to give attention to the unique effects that Federal legislation will have here.

Although it is not particularly productive to provide long agendas of needed research, it might be helpful to illustrate the types of research and development of both a short-term and long-range character that ought to proceed in Puerto Rico. In the short run it is essential to define better the range of services and facilities necessary at the health center level, including the best mix of personnel, the appropriate range of diagnostic facilities to be available, and the necessity of beds in different localities. These, of course, are tasks to be done and not research issues. Underlying such decisions, however, are research projects involving the acceptability of nurse practitioners to the population, their levels of performance, and their cost effectiveness; the actual way in which beds have been used in various health centers, including bed occupancy rates and length of stay for specified problems; the extent to which beds are used for meeting social-medical needs and the relative effectiveness of using these beds in contrast to other facilities; and so on. In addition, research is required to operationalize simple and useful data systems both at the primary care level and elsewhere that provide information on the services actually being delivered and a better basis for reimbursement when third-party insurance is available. Moreover, some assessment has to be made in varying contexts as to whether the reimbursement captured justifies the administrative cost of the effort. At the patient care level it would be extremely valuable to assess the advantages in terms of patient satisfaction and improved quality of care when health centers are organized to assign continuing responsibility for each patient to a specific practitioner in contrast to operating a dispensary. At the more practical level the particular projects chosen should reflect what Puerto Rican health professionals see as their most pressing problems, and I believe that this aspect of the research agenda should be responsive to the problems that doctors and administrators are facing on a day-to-day basis in attempting to carry out their responsibilities.

The long-range issues, in my opinion, are more difficult and require greater analytic capabilities. What would be the consequences for Puerto Rico of a national health insurance plan, based on required employer-employee contributions, to purchase approved insurance plans in the nongovernment in contrast to a proposal such as Kennedy's health security plan? In what ways would subsidy for the purchase of private health insurance weaken the public sector in Puerto Rico, and under what conditions would such an approach provide opportunities to strengthen public services? What investments within the public sector in health services are most likely to reduce illness and disability? To what extent should Puerto Rico emphasize early detection and prevention, environmental control, and industrial health as compared with developing more sophisticated curative care at the regional hospital level? These are not simply research issues; they are areas in which there are strong values and vested interests. However, a better understanding of the workings of health services system and its areas of greatest potential improvement provides a context in which economic and political forces can perhaps be moderated.

Although the long-range policy efforts are largely analytical, those in the short run are more a matter of implementation. Thus, although the response of Puerto Rico to major initiatives will involve a clash of values in Puerto Rico, as they do in the United States, the short-run efforts are largely a response to goals that have been more or less agreed on. For example, once Puerto Rico makes a commitment to strengthen its preventive and primary care services, the health services questions revolve around the measures most likely to implement this commitment effectively. What should policy be on physician distribution, and what are the effects of varing incentives? How should one train and use nurse practitioners? How should primary care services be organized in relation to an identified population? How much outreach should be carried out, and how should it be done? How can efforts in primary medical care, mental health, family planning, and drug abuse prevention best be organized to avoid unnecessary fragmentation but without losing momentum in any of these important efforts? What essential services are unlikely to be carried out effectively by the existing medical structure and thus require special categorical emphasis? How is authority best distributed between local officials and the health department and between officials in staff and line positions?

Collection of new data in health services research is usually expensive although often essential. When research dollars, however, are as limited as they are, it is productive to attempt to develop an information system that serves a variety of purposes including management, patient care planning, and health services research. Others at the conference will discuss the informational needs of a health delivery system and the ways such a system can be made operational. My point here is simply that a well-organized informational system that contributes to effective administration in also likely to be a very useful source of health services research data that facilitate the identification of needs and problems and that make visible variations in services, expenditures, and performance. If the system is well organized, it provides an opportunity for interaction between health planning and the research process.

We know that there is often a large discrepancy between promise and reality. The data may be available but there may be no one capable of analyzing them; the funds for research analysis may be sufficiently small so that the data are provided too late to be useful; the handling of the data may have become so elaborate that it is difficult and expensive to retrieve them; or those who have the data have little skill or interest in interpreting them for those who can effectively use them. The fact that health services research is being done is no assurance that it will be diffused or implemented. These facts argue for carefully building a health services research capacity in which the goals are in tune with the personnel available and their levels of skill and experience.

In sum, as we look toward the development of national health insurance, Puerto Rico is not only a fascinating and important laboratory for its own health services development but also for the mainland. While it faces many of the same problems as the mainland in terms of distribution of manpower, cost containment, coordination and planning among different levels of care, and the like, it also has a great deal of experience in areas in which future development on the mainland is inevitable. Because most of Puerto Rico's people have received their care in the public sector, it has had to face problems of regional planning and development, the direct employment of health professionals, problems of coordination between health department policies and local services delivery, and many others. As Puerto Rico moves to implement its commitment to provide adequate services to all of its citizens, it will further provide experience that will be useful not only in Puerto Rico but on the mainland as well. Because Puerto Rico operates within a similar (but not identical) framework as the various states in relation to Federal regulation, its experience in organizing and providing services within the public sector is probably more valuable than similar experiences gained in Europe or elsewhere. Puerto Rico, because it shares more of the mainland culture, gives us a truer picture of the likely responses of the population, professionals, and public officials than, say, experience in Britain or Sweden. In short, it is important to develop a strong health services research capacity in Puerto Rico not only because it will contribute to improving services for Puerto Rican citizens, which is sufficient case in itself, but also because Puerto Rico has a great deal to teach us as we move toward more organized, planned and regionalized health delivery systems in the future.

Summary of Open Discussion Following the Presentations of Dr. Fernandez and Dr. Mechanic

In 1963 the Master Sample Survey (MSS) showed that 60% of the population in Puerto Rico got their health services through the public health care system. Since 1963, Puerto Rico has moved toward greater usage of the private sector for the provision of health care. There is a necessity to examine the health services utilization patterns as well as the financing mechanism in both the private and public health care systems. The necessity to update the data on patterns of health care (e.g., whether more of the population receive their services in the public or private sector) was mentioned by several participants. The movement away from the public sector and toward the private sector is not unique to the health care system; it has occurred in the educational system also. It may be that the public is not so interested in maintaining services in the public health care sector.

On the other hand, the public sector of health care in Puerto Rico is viable because many people are using this system. Still, as people move away from the public health care system, the public system weakens. An important question to be answered is how to enhance those aspects of the public health care system that are worthwhile.

There is a need for health services research in Puerto Rico to focus on the public's perceptions, and communicating and sharing information was stressed as a way of obtaining community support. The need for more evaluation research was also mentioned by several participants.

The political situation of Puerto Rico was described as one of continuous political changes. There is a need to search for consensus in areas of research so that research continuity can be achieved in view of the changing of research priorities between administrations. The process of setting priorities for public health on the Island was in itself suggested as a possible worthwhile area of study.

A Case History of a Health Services Research and Development Center (A Strategy in Action)*

by Sam Shapiro**

The paper is basically a case history of the formation of the Johns Hopkins Health Services Research and Development Center, the evolution of its objectives, organizational structure, and activities. Two approaches were considered in preparing the report. One would have drawn from the experience of the Center those elements and lessons that appeared to be relevant for an HSR&D Center in Puerto Rico and thereby implicity advanced a recommended strategy. Clearly, the Conference at the end of March, 1977 will need to examine critically past and current research center experiences for applicability to Puerto Rico. But, this will be an interactive process with individuals who have a broad set of technical, policy and planning responsibilities in Puerto Rico, and have the essential knowledge of human resources available for research development, existing interorganizational relationships and changes underway, and, of major importance, the current status and content of priorities that could serve as the frame of reference for a research agenda.

Accordingly, it was decided to develop a report that is descriptive of the Hopkins HSR&D Center, rather than interpretive for Puerto Rico application, and in sufficient detail to serve as a working document.

The period 1969–75 the establishment of the center and funding

The genesis of the Health Services Research and Development Center is focused on actions taken during 1968 and 1969 by the Johns Hopkins Medical Institutions (JHMI) to enhance its ability to address major issues related to primary medical care that were emerging locally. Early in 1969, the Office of Health Care Programs (OHCP) was established to "engage effectively in the organization and evaluation of new systems for the delivery of health services" and shortly thereafter, the Center was created as a unit within the OHCP. At the time, it was perceived that the Center would: (a) assist in the design and modification of the prepaid group care on the campus of the JHMI; and (b) conduct experiments and observational studies to test or evaluate the effectiveness of such changes.

A small nucleus staff was funded by JHMI to define more specifically the content and scope of the Center's program, its organizational structure and the relationship to other components of the University and to seek support from outside sources. Grants received by the OHCP from foundations provided stability to this effort. The award of a 5 year grant effective January 1, 1971 by the Nationl Center for Health Services Research and Development (NCHSRD) provided the resources for building a strong, multidisciplinary staff required to develop and conduct the JHMI Center's program of evaluative research.

Over the 5 year period, the Center evolved from a small aggregation of well trained but relatively untested professionals to a balanced staff of seasoned and less experienced investigators. Confidence in the Center's capability of assuming responsibility for significant research of broad interest increased and a large number of governmental and private foundation grants and contracts were awarded to the Center. Also institutional support increased. Although less than half of the support was derived from the NCHSRD grant, it is clear that the breadth of the Center's activities was due entirely to the basic support received under this grant. In turn, the Center's ability to deal effectively with the objectives under this grant was greatly strengthened by the growth of its research activities and the concomitant decision by senior and other faculty at Johns Hopkins University (JHU) to participate in the research program of the Center.

Objectives

The Center focused on the assessment of quality, utilization, and economics of primary care and

*A more detailed discussion of the programs of the Center is available on request from the author.

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how consumer, provider, management, and structural factors, as well as sources, methods, and levels of payment influence the results. Issues were sought out for which the evaluative process provides a basis initially for considering modification of some aspect of the delivery system, (e.g., use of mid-level manpower) and later for measuring the outcome of the change. The first two years of the grant were primarily concerned with building staff, developing relationships with health care settings and introducing basic data systems, and conducting exploratory methodological studies that would lay the ground for more definitive research. In year 3, the Center entered a new phase in which the emphasis was on highly targeted research projects dependent on multidisciplinary approaches. Resources continued to be allocated to relationships within and outside the University and to development of new areas of research on issues that affect primary care.

Institutional position of the center

The Center was moved out of the Office of Health Care Programs in 1973 and became a separate entity within the JHMI, reporting directly to the President of the University. This change facilitated creating links across academic lines and strengthened the position of the Advisory Board. The membership of the Board was designed to strike a balance among the constituent medical and academic institutions of the University and consisted of individuals with strong technical, administrative and programatic skills and positions. A Consultant Advisory Committee consisting of experienced and productive individuals in the field of health services research provided an important resource for group consideration and individual consultation of the Center's program.

Close working relationships were established between the Center and many of the academic and service entities at JHMI. The organizational position of the Center eased the process of developing these relationships but a more important factor was the increased awareness of the Center's capability to conceptualize, design, and conduct health services research. Specific manifestations of these relationships were the collaboration with: (1) the School of Health Services in studies of role performance of non-physician providers of health services; (2) the Office of Health Care Programs in developing information relevant for the assessment of ambulatory care functions of the Outpatient Department of the Johns Hopkins Hospital and other facilities affiliated with JHMI; (3) the Division of Health Education, School of Hygiene and Public Health in methodological and substantive research on the application of health education strategies for preventive health services and modification of health care behavior among patients with particular chronic disease; (4) the Department of Biomedical Engineering, School of Medicine, in evaluation of applications of technology designed to increase efficiency, effectiveness, and accessibility of health care; and (5) the Division of Emergency Medical Services, School of Medicine and Johns Hopkins Hospital, in the development of a program of research to evaluate a variety of system, service, and clinical interventions in EMS.

In addition, the Center developed relationships on an individual level with faculty members of several departments in the Schools of Hygiene and Public Health and Medicine and with the Clinical Scholars Program at JHU, that result from the opportunities they see at the Center for engaging in research of mutual interest. The faculty in the Department of Health Care Organization (later merged into the Department of Health Services Administration) was the most consistent and extensive resource for this type of association. Faculty in this department and other departments in the School of Hygiene and Public Health turned to the Center for aid in the development and conduct of studies to meet dissertation requirements for doctoral and master degrees where the topics related to the research programs of the Center.

Settings

The primary care programs that were the locus of the Center's activities included the Columbia Medical Plan (CMP) (18,500 enrolles), an HMO serving a middle class suburban community; East Baltimore Medical Plan (EBMP) (8,000 enrolles and registrants), an HMO in an urban poverty area supported principally by Medicaid premiums and 314-E funds and in transition to a capitation prepayment program available to all the community with Medicare, Medicaid, or private health insurance; Broadway-Orleans Health Center (BOHC) (220 registrants), a medical facility in a housing project of the aged; and the Outpatient Department of the Johns Hopkins Hospital (half-million visits per year), a major provider of ambulatory care in the East Baltimore area, where reorganization of facilites is a high priority issue. Relationships were established with Baltimore City Hospitals and Sinai Hospital for research in ambulatory care. The diversity in structure, financing, staffing, and populations served that is represented by these settings offered special opportunities for health services research and significant progress was made during the latter period covered by the grant to move from single site studies to multi-site investigations.

Staffing and internal relationships

Professional staff at the Center expanded to include three groups of individuals: (a) those who have a primary commitment to the Center and a secondary appointment, in most cases, in the School of Hygiene and Public Health, School of Medicine, and School of Health Services; this group represents the major force in developing and conducting research; it is interdisciplinary in background and approach to research; (b) those who have a secondary but significant commitment (20% or more) to the Center; this group provides an important link to other parts of the JHMI and augments disciplines or skills available at the Center; and (c) those who are functioning in a systematic support role (10%–15%); their special skills and interests in the Center have made this group productive for the Center's programs. In the aggregate these individuals provide strengths from the fields of biostatistics, epidemiology, medicine, information systems, sociology, health economics, health education, operations research, pharmacy, and computer sciences. Included in group (a) are a full time Director, who has a tenured position in the University as Professor of Health Care Organization, and a full time Associate Director. The former is a biostatistician and epidemiologist; the latter is a sociologist.

Early in its existence the Center established a set of internal arrangements, maintained to the present, that has proven to be highly effective in achieving cohesive working relationships and productive developmental and research activities. At the core of these arrangements are full opportunity for staff to participate in deliberations on all important matters, a policy of keeping staff informed about developments and progress at critical junctures in the conduct of research, and a strong sense of joint responsibility for the performance of the Center. Important mechanisms are general staff meetings, smaller sessions with program directors and other senior members of the staff, and multidisciplinary task forces concerned with conceptual design, and analytical issues in a program area. In addition, the Director meets with the Associate Director and Research Manager to review the Center's progress, problems of coordination, and issues that require general staff discussion. These modes of functioning are augmented by retreats of senior staff and faculty from the School of Hygiene and School of Medicine to consider current areas of concentration in the Center, broad conceptual issues that affect multiple projects, future priorities, and implications for resource allocation at the Center. This set of mechanisms is designed to promote an integrated approach to research development with program directors proceeding with considerable independence in their respective areas.

Research and development prior to 1976

Through a consortium of funding from a variety of sources, the Center has engaged during this period in highly targeted projects and studies concerned with methodological developments in the field of health services research. Studies (a)–(e) below were supported mainly by the NCHSR Center grant; project (f) by an EMCRO grant, also from NCHSR. Objectives of these activities follow.

a) To assess the potential within an encounter data information system standing by itself as linked with other sources of data to:
   (1) provide information that is demonstrably useful for management, administrative and clinical purposes in the planning and functioning of HMOs and OPDs of hospitals in communities heavily dependent on them; and
   (2) evaluate process and outcome of care.

The Center developed during 1969–70 an encounter data information system containing characteristics of enrollees (or registrants) and the basic data set on services later recommended by NCHS for national adoption. This was introduced initially in 2 HMOs and another care setting. Costs for the basic system are met by these programs, while costs for data processing and analysis of an exploratory nature are the responsibility of the Center. Examples of the latter are the processing of diagnostic and prescribed drug data for special research purposes. In January, 1975 encounter data information systems were introduced in selected OPD clinics of the Johns Hopkins and Baltimore City Hospitals. A major objective was to generate information that would aid in making judgments about changes required to improve the functioning of these clinics, and in reexamining the role of the clinics in meeting the demand from the community for primary care.

(b) To determine the suitability, usefulness, and influence of the ambulatory medical record in various structured delivery systems, including the OPD of a teaching hospital, as an information source for both patient care and medical audit, and to assess continuity and coordination of care provided.

The project probed into the use of specific categories of information in medical decision-making as determined by chart review, and how this may vary in differently structured ambulatory care settings. A focal point was the determination of the extent to which continuity and coordination of care are influenced by whether the patient is seen by the same providers at successive visits.

(c) To develop and evaluate methods of improving the prescribing of drugs.

The setting under study was an HMO prototype. Two sets of studies started separately and at dif-

ferent points in time, bear on the issues involved. The first, an automated drug profile, was primarily concerned with developing baseline data and procedures for obtaining information that would economically serve clinical and evaluative purposes and was conceptualized as the initial step in a review procedure for drug use. The second study was concerned with the development and evaluation of a structured drug use review process involving the establishment of criteria and monitoring the appropriateness of drug utilization.

(d) To investigate the health care behavior of defined population groups receiving care from a variety of delivery settings and the influence of personal characteristics, knowledge, attitudes, perceived need for care and accessibility on patterns of care.

One of the populations studied consisted of residents in census tracts in relative close proximity to the JHH and to the EBMP. The area is a low-income predominantly black community which has obtained much of its ambulatory care from hsopital clinics and emergency rooms. An alternative that became available in 1971 was an HMO and a basic issue in the study concerned the effect that dependency on the HMO vs. JHH OPDs vs. other community health resources has on accessibility to primary care, compliance, self-treatment, and other aspects of health care behavior. The principal source of information was a household survey of 2,000 families.

(e) To identify the effect of varying configurations of physician and non-physician providers of health care on the economics and quality of primary care in structured health care settings.

One phase of the study was an analysis of changes in utilization of services and in content of practice among physician and non-physician providers of primary care that have occurred in two HMOs that accompanied the introduction of non-physician providers. A principal source of information was the encounter data information system and the related enrollment and registration files. Another more complex phase of the study was directed at role performance of physicians and non-physician providers and the relationship between provider level and quality of care. This project aimed at determining differences among levels of health care providers in the process and outcome of ambulatory care in pediatrics, adult medicine, OB-Gyn, and surgery. Included were: (a) the degree to which different provider groups (physicians, health associates, and health assistants) are involved in information gathering, diagnosis, problem management, acute treatment, chronic care; (b) the extent to which practitioners are functioning in an independent, interactive , or dependent manner with respect to task performance and decision-making; and (c) whether differences exist in the effectiveness of care delivered by physicians and health associates.

(f) To develop and test an Experimental Medical Care Review Organization (EMCRO) which places major emphasis on outcome of care measures for quality assurance in ambulatory care where the delivery system has responsibility to provide comprehensive care to a defined population, in this case an HMO prototype. This methodological investigation defined quality of care in terms of accessibility to care, acceptability of care, effectiveness and efficiency of services. A stepwise, incremental approach was taken; that is, through a series of rounds when data were gathered, instruments and measures were tested, results reported to the providers, consumers, and administration of the Plan, and the utility of the data for identifying problems (clinical, patient related, and system related) in the delivery of care examined.

Funds for grants and contracts other than the basic NCHSR grant, supported the following:

(1) Survey of quality assurance and utilization review mechanisms in HMO prototypes throughout the country (Health Services Administration, DHEW).
(2) Development and testing through a randomized clinical trail of methodologies for effective health education strategies for hypertension control; the sites are the OPDs at the JHH and BCH (National Heart, Lung, Blood Institute).
(3) Assessment of efficiency and effectiveness of alternative procedures for using diaries in household surveys to obtain reliable and valid information on charges for health care, sources of payment and utilization over a six month period. (National Center for Health Statistics).
(4) Evaluation of regionalized networks for high risk pregnancy care based on end result mortality and morbidity measures and assessments of the relationship of process variables to outcome (Robert Wood Johnson Foundation).

The current situation

A new phase in the Center's development

The Hopkins HSR&D Center started a reexamination of its mission and mode of functioning in late 1974. This was stimulated by the provision of P.L. 93–353, the Health Services Research, Health Statistics and Medical Libraries Act of 1974 and the subsequent NCHSR program of core grant support, under which the Center received a new 5 year

grant, effective March 1, 1976. Other important considerations in the Center's reassessment were the contents of Federal legislation P.L. 92–603 (PSRO), P.L. 93–222 (The HMO Act), and P.L. 93–641 (The National Health Planning and Resources Development Act), which, in many respects, represented a series of determinations on the nature of problems in health care delivery and on the mechanisms required to improve the organization, distribution, economics, and quality of care. The review process led to the definition of objectives for the Center that, while linked to past activities, had a broadened scope which reflected the Center's interest and capability to address issues being given high priority for national, regional or local purposes. Other changes included more extensive involvement in training and service.

The institutional position of the Center has remained unchanged and the staffing pattern and internal relationships discussed earlier have also not been altered except to provide for more specific responsibilities in the development of the training and service functions of the Center. This is reflected in the following organizational chart for the Center which, in previous years, would not have included these two activities.

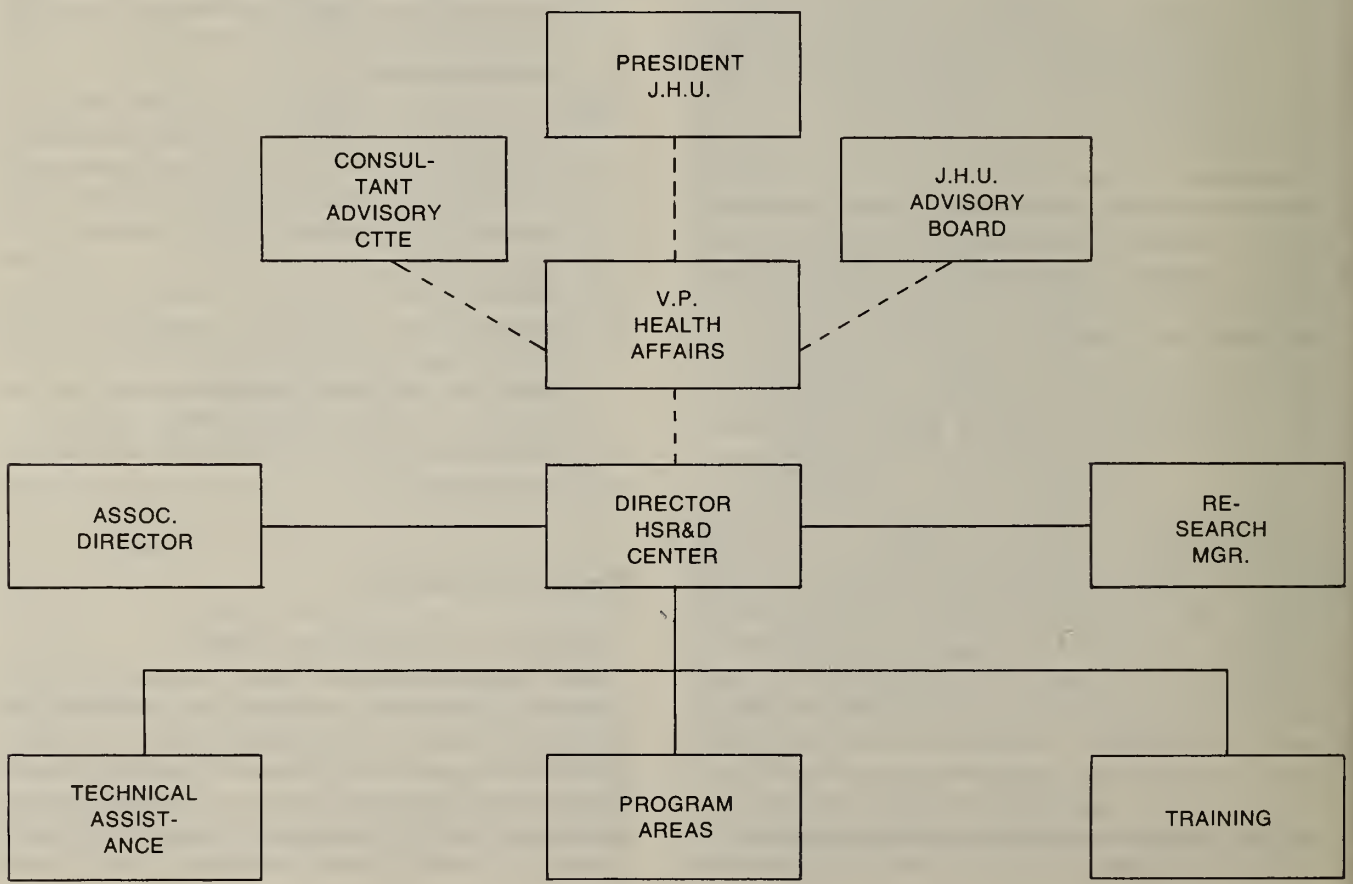
The remainder of this report presents the current objectives of the Center, research strategies, and a brief statement on the considerations that determine priorities for developmental projects and specific substantive research. For illustrative purposes, relationships with planning agencies and the process of determining the direction of associations with delivery sites are discussed.

Current objectives

1. To strengthen and extend relationships with a diverse set of ambulatory care delivery settings in the geographic region of the Center for the development and conduct of health services research. The settings include well established HMOs, new HMOs being developed, OPDs of teaching hospitals and other community hospitals, and other organized delivery systems in the area.

2. To continue to identify characteristics of delivery systems and their sub-systems, providers,

Health Services Research and Development Center the Johns Hopkins Medical Institutions



population and community that affect the economics, utilization and quality of care, and assess their relative significance. Included are: system characteristics related to organization, financing, scope of services, availability and accessibility of care, provider configurations (types of personnel, training, role performance); links between primary, secondary and tertiary care; and population characteristics reflected by social-demographic status, knowledge, beliefs, perceptions, expectations, and needs related to health care behavior. Components of the dependent variable, economics of care, include productivity, costs in dollars and in units of facilities, equipment, procedures, drugs and other medical goods, and personnel utilized or made available for specific types of health care (preventive, diagnostic, theapeutic services). Quality of care encompasses a broad array of process and outcome measures for which new developmental efforts are required.

3. To design and conduct pilot studies to identify modifications within a delivery system or between systems that might improve performance from an economic and quality standpoint; determine mechanisms that would enhance the prospects of action being taken on the basis of research results; develop procedures for evaluating the effectivenesss and persistence of changes that are made; and determine which aspects of the evaluation process can become a part of a continuing, internal system of assessment for the health care setting and which require external monitoring.

4. To develop a methodology and valid measures for distinguishing and describing the various levels of health care and their interrelationships to facilitate appropriate planning for levels of care. The issue relates to the polarization that has developed concerning who should be providing primary care. Many current specialists maintain that primary care is a component of care that all physicians are already and should continue to provide whether they are specialists or generalists. At the other extreme are those who maintain that primary care is a specialty itself. Methods are needed to clarify the dynamics of the relationships among physicians at the various levels of care and their effect on the flow of patients among the levels, and how various system and patient characteristics (including care seeking practices) influences these dynamics.

5. To design and test strategies including health education, for primary and secondary prevention in populations or patient groups served by various health care delivery settings; and to develop methodologies for evaluating the application of procedures that appear promising. The emphasis is to be on health problems and methods of prevention for which cost-effectiveness can be measured in terms of: (a) reductions in such health indicators as symptoms, illness episodes, impairment of function, incidence and sequelae of specific conditions; or (b) in terms of behavior changes that influence participation in preventive programs, compliance with preventive and therapeutic regimens, reduction in risk factors (e.g., smoking, diet and weight problems).

6. To identify the problems and issues in the delivery of health services in which technology can play a role in the solution. This activity will include problem identification and analysis, small scale pilot feasibility and evaluation studies leading to structuring projects for which other support is being sought. Issues are to be drawn from such areas as information flow, communication, productivity, resource utilization (both human and physical resources), quality of care assessment and assurance, preventive medicine, and management of complex delivery systems. The technologic area will be broad and can draw from resources in the engineering and physical sciences as well as communications and information sciences.

7. To extend relationships with other divisions of the University for collaborative efforts aimed at developing methodologies for assessing the impact of changes in the social, economic and physical environment of the population on demand for health services and morbidity patterns. Other questions concern the long run effect of apparently small changes in treatment or use of clinical resources on benefits and costs of health services. This represents an attempt to start bridging research on a micro-level with research on a macro-level, a step that has important implications for health services planning in a region or local community.

Research strategies

Based on the experience of the early years of the Center, it is clear that the acquisition of information to meet the stated objectives of the Center is dependent primarily on the close coordination of two methodological strategies. One starts with the community, geographic or defined in terms of enrollment or other manifestations of strong ties to a health care setting. In this case, the formulation of health care issues is oriented towards population characteristics, demographic, perceptional, attitudinal and behavioral; utilizers and non-utilizers of health services are of interest; and the structural and provider attributes of a health care system are examined from the vantage point of the community. Further, the contributions through population based research become clearer when detailed probes are made into such questions as the relationship of accessibility to patterns and sources of care, responsiveness to preventive health programs and symptoms, effect of economic conditions on health care behavior, and health status.

These concerns could be interpreted as broadly applicable to community problems and of general

interest to delivery programs. However, close scrutiny of the issues being raised within health care settings themselves indicates that much can be gained by them through the population based strategy. For example: to what extent are their efforts to provide continuity of care enhanced or impeded by knowledge in the population and cost patterns laid down during periods when opportunities for such care were not as readily available, etc.; how do priorities set by a delivery system for changes in structure relate to priorities set by a community; what needs to be ascertained about the population's understanding and receptivity to a specific change or new program that would either alter the content of the proposed change or call for educational efforts.

The major tools for many of these inquiries consist of the household survey and the less costly but more limited telephone and mail questionaire surveys. The Center has utilized these methodologies and will undoubtedly find it necessary to do so again. An issue that needs careful appraisal is how the information obtained related to what is learned from other sources in a community that is being continuously studied. This may lead to more sparing use of a household survey, for example, and to targeting inquiries to highly specific subsets of the population, sometimes defined by condition. A better understanding of the relationship between the patients of a health care program and their parent population could lead to great economy of effort by directing a number of the studies at patient groups.

The second research strategy starts with the delivery system and clearly there are many questions that can be dealt with only through intensive study of the functioning of the program. Provider and structural variables predominate and while patient characteristics necessarily enter the investigation they are approached from the vantage point of the system. Inquiries regarding the organization, financing and efficiency of a program can be pursued quite far in this way, as well as studies of quality of care. Relatively efficient methodologies have been or are in the process of being developed for this purpose, e.g., the encounter data information system and well organized medical records. Also, brief questionnaires administered to patients as they appear for care or soon thereafter have provided an economic approach as compared with the household survey. The extent to which such questionnaires, judiciously applied, can become sources for more detailed sets of data on factors related to health care behavior is being given increased attention by the Center.

While the preceding represents the main orientation of the Center towards strategies in health services research, there is need to find ways to maximize the utility of existing data sets for policy and planning purposes. A compelling reason for doing so is the provision under P.L. 93-641 that for the near future, at least, the periodic assessments of health status, accessibility, acceptability, continuity, quality, and cost of care are to be based on available sources of information. Candidates for such use are vital statistics, census and intercensal population estimates, hospital discharge abstract data (if a centralized collection system in functioning), professional society and public and private agency records of the geographic distribution of long-term and short-term health facilities, and physicians and other professionals in the health field. Objective 7 is targeted at developing approaches to this area.

Considerations in setting priorities and mechanisms

The research program of the Center is shaped by several considerations that call for close associations with outside agencies. A major factor is the determination of research or analysis of existing data requirements for the effective functioning of the Central Maryland Health Systems Agency and other planning agencies in the region. Another consideration is the policy issues that are identified in the Forward Plan for Health of DHEW and their conversion to a set of priorities for health services research by NCHSR and other governmental agencies. While the Center has a broad multidisciplinary base, a selection of research questions needs to be made and this is influenced by the areas in which experience has been gained, the ability to add new skills to the Center, and in many instances, by the opportunities to develop and conduct research involving health care delivery settings.

Prior to the current grant, the ground had been laid for the exploration of new ways to establish relationships with planning agencies, health care delivery settings and organizations, public and private, controlling routine data sets. Individual associations have remained key elements in the relationships. However, it was recognized that more structured mechanisms would be needed. The approach that is being pursued successfully is to establish links through staff members who develop an agenda for these relationships and become active members of committees. The content of specific approaches to these agendas are individualized and it is informative to see what this represents in the particular case of the local health systems agency (Central Maryland HSA, Inc.) and the Region III health planning center (Health Planning Research Services Inc.).

Preliminary steps have included meetings to familiarize these agencies with the research orientation, scope of interest and staff capabilities of the Center. To strengthen relationships and increase the prospects of contributions from the Center

through relevant research and technical assistance, a staff member is allocating 25% of his time to a liaison role. He meets periodically with the HSA's planning and certification review committees and he has been appointed to the Data Subcommittee of the Planning Committee. A focal point for this sub-committee are the data requirement of the Health Systems Plan (HSP) and the Annual Implementation Plan (AIP) that are to move from their current preliminary state to more definitive documents in 1977. Consistent with the provisions of P.L. 93-641, these Plans give high priority to the identification of gaps, their correlates, and programs for improvement in availability, accessibility, and quality of primary care in the area as a whole and within geographic subdivisions. A process has been started by which results obtained or expected from studies already underway on these issues are examined with planning groups and new requirements are defined. These include community based studies of the relationship of resources to health care behavior in disadvantaged populations, the application of data information systems and other methodologies for quality assessment and assurance, investigation of effectiveness of new health practitioners in delivery of primary care, and inquiry into the coordinating function of primary care and variables that affect it.

Other issues receiving high priority by the HSA are related to community health education and regionalization of health services. The efforts already being made by the Center in these areas are expected to be useful for local planning purposes.

Discussions with the Region III health planning center have identified as an immediate problem for joint consideration the definition of health status measures for small geographic areas that can be derived from existing sources of data. The issue is, of course, receiving national attention but there are special opportunities for the Center to seek solutions to the conceptual, measurement and operational problems faced by all regions. The activity is being led by an associate of the Center who has had experience in dealing with similar issues. Of particular interest is his work related to the use of statewide hospital discharge data linked to vital statistics for evaluation and planning at a local level. Other members of the staff are developing a "model" that will be the subject of a workshop with participants drawn from planning agencies, custodians of routine data sets and other researchers in Region III. The Center and the Region III health planning research center expect to prepare a manual based on the results of the workshop which will aid in the development and use of health status measures derivable from available data sources.

Significant as this would be, it is apparent that for the long haul, population surveys, use of existing record sources as a data base, and studies involving close examination of variables affecting the economics and quality of care in specific health care settings will be important. The last named requires the establishment of close relationships and trust among administrators and clinicians and a recognition of relevance of research for their improved functioning. This has been achieved in several delivery sites and has progressed to the point where one or more staff members are active participants on key committees. The sites include:

East Baltimore Medical Plan	(HMO in a low income area)
Columbia Medical Plan	(HMO in a middle class area)
Sinai Hospital	(Community based clinic in middle and lower income areas)
Baltimore City Hospitals	(Municipal hospital clinics with ties to developing HMO)
Perry Point Veterans Hospitals	(Psychiatric Institution with interests in links to ambulatory continuing care)
Johns Hopkins Medical Clinics and Office of Health Care Programs	(Major teaching facilities in low income area, directing attention to reorganizational requirements for primary care).

The need and opportunities to increase the diversity of health care settings for research purposes beyond those specified above are now being reviewed. An important determinant will be the frameworks being developed for future research in primary care and preventive health. Documents are being prepared in which specific variables are examined in terms of their relevance for short-term and long-term planning, the extent to which the Center's program has already made a definitive contribution and the need for additional or new research in a broader variety of delivery sites or through population based inquiries. In the case of primary care, the starting point is a definition in which continuity and coordination of comprehensive diagnostic, therapeutic and preventive health care are basic elements. The approach provides a structured method for considering many of the system, provider, and consumer characteristics detailed in objective 2 in relation to the following criteria for setting priorities in primary care:

Importance as a characteristic of primary care;

Existing Center expertise/experience and ability to other faculty expertise;

Importance to policy or planning agencies (regional, national; short-term, long-term);
Research priority (high, medium, low; resources available, new resources required, and level of support).

Results of this analysis are being examined in terms of the research potential (interest in change, evaluation, and ease of access) in ambulatory care and community settings classified below.

Hospital clinics	- teaching, non-teaching; general, specialty; emergency room.
Group practice	- HMO; multispecialty; single specialty.
Public financed	- Health Department; M & I; C & Y.
Solo practice	- general, specialty.
Communities	- Health care resources available; levels of health status.

Training and technical assistance

Although the primary focus of the Center remains research and development, the training and technical assistance functions have expanded and been given greater visibility than in the past. Responsibility for planning and coordinating activities that are Center sponsored in distinction to ad hoc individual efforts by staff is assigned to two senior research associates at the Center, each of whom allocates 20-25 per cent of his time to the training or technical assistance area. In the aggregate, it is estimated that about 1½ person-years of effort is being supported by the core grant for these activities; an additional person-year is drawn from other grants and contracts.

Training Almost all of the professionals in the Center have academic appointments in the School of Hygiene and Public Health, School of Medicine, School of Health Services, or in a graduate department of Arts and Sciences on the Homewood Campus of The Johns Hopkins University. The courses they teach reflect the multidisciplinary character of the research program of the Center. These courses cover methodologies for studies of community health and information systems in delivery settings, operations research, prevention and health education, long-term care, research in emergency medical services and utilization, behavioral science theory and application in the health field. The program of the Center is an important resource for material for these courses and a majority of graduate students in the School of Hygiene thereby become familiar with the scope and orientation of health services research as developed by the Center. One result has been increased involvement by staff as primary or secondary advisors of degree candidates.

Training activities have been extended to broaden the understanding within and outside the University about the role of health services research for planning and policy purposes and to identify the Center as a resource for training as well as research. Principal activities include:

1. Health services research seminars sponsored by the Center;
2. Post-doctoral Fellowships:
3. Participation in the Robert Wood Johnson Foundation Clinical Scholars Program at The Johns Hopkins University; and
4. Visiting Research Scientists.

Technical assistance. The Center has undertaken new technical assistance responsibilities in its region. This represents a significant expansion of previous associations which have grown out of the Center's research programs. The loci of the new activities are the Central Maryland Health Systems Agency and the Perry Point Veterans Administration Hospital. The emphasis placed on developing relationships with these two organizations is in great measure a result of the priority placed by NCHSR's Health Services Research Centers Program on addressing issues of regional and local significance.

Areas within which activities are being undertaken include the application of routine data sources in planning (e.g. health status measurement) and the linkage of macro data sets and community household surveys to examine patterns of care and issues of availability, accessibility, and health status. These areas were selected because of their importance to the HSA and the immediate opportunities to begin to examine how research being conducted by the Center can feed into local planning. Other issues of major importance to the HSA's Health Systems Plan and Annual Implementation Plan on which work has started are prevention and long term care.

In the case of the Perry Point Veterans Administration Hospital, the Center has undertaken to assist in the development of a health services research component at the hospital. Areas of interest include information systems for management and quality assurance and the impact of alternative manpower configurations on the provision of inpatient, ambulatory and long-term care.

Strategies for Organizing and Conducting Health Services Research

by Charles E. Lewis*

The title of this paper carries with it certain implications. It suggests that there is a game or war or something to be won, and thus begs several questions: Who are the adversaries in the contest? What is the game? What are the rules? How is it played? How does one "win," i.e., what are the objectives?

I should like to consider these roughly in this order, and in passing pose a few other questions, such as why do it and who can play?

Why do research?

The motivations of researchers have been debated on many occasions. The reasons given range from the Mount Everest answer—"because it is there"—to others that represent a version of "This I believe," or "It is part of my job—it's a way to make a living." These might be re-labeled cognitive gymnastics (I want to know, and I really do not care what they do with the results), ideological commitment, and vocational survival. The last orientation is not to be diminished in importance, since in one way or another *all* researchers are rewarded—either in prestige, power, or economic returns—for their investment.

Figure 1 (p. 41) illustrates the three types of health services research that I believe are conducted. Sub-set A includes basic or pure research. Methodologic questions and the manipulation of multivariate analyses involving variables based on constructs from different disciplines fall into this area. Sub-set B has been labelled "values" because this corresponds to the applied ideology sphere. A good number of studies conducted in this field are basically designed to show that the author's proposal is *the* answer to a problem (that may have been defined as such by the investigator). The third area is concerned with providing details for operations in the real world. These might be labelled as technical or mechanical studies. The first type of study provides results without values; the second shows that X is better than Y on some dimension (hopefully specified). This third group labors to determine the answer to questions like, "Given X is better than Y, how do we get more X's per dollar?" (Hopefully there is an addendum related to X's of a certain level or standard).

Limitations in health services research

The first type of research is limited by the state of our knowledge and instrumentation, and its primary objective is to reduce these limits. This is the nature of basic research in general, be it in physics, molecular biology, or even "health services research." The second set of research problems have solutions that depend upon not only the state of knowledge and instrumentation available, but also *someone's views or expectations.* Most of biomedical research falls into this category, and perhaps it has been so well supported because almost all of the groups involved—funding agencies, society, politicians, and researchers—tend to share views, such as the undesirability of death (from any cause and at almost any age) and thus the need for better measures to prevent, diagnose, or treat this problem. Some health services research fits into this category, although one of the characteristics of this field is that few of the groups involved share a common perspective or set of views or values regarding what the problem is or how it could/should be solved. Finally, real world research depends upon pre-defined and agreed upon views, i.e., there *will* be national health insurance—as well as the knowledge and instruments necessary to answer specific questions about the consequences to the game of substituting a small, round ball for a large one that is elliptically shaped.

A definition of health services research

To leave as little as possible to doubt (as well as to maximize conflict), let me provide a definition

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of health services research as "those activities which serve to rationalize or optimize the delivery of health care, thus producing a more "ideal system." This somewhat abstract statement begs a second definition—What is an ideal system? This in turn I shall define as follows: An ideal health care system, as specified at any point in time and space, is one in which health needs (as defined by a society) are dealt with in the most efficient and efficacious manner. That is, the best outcomes (as defined by society) are achieved for the amount of economic resources that society is willing to allocate. Having provided a definition of the objective of the "game" for which our strategies are being developed, the stage is set for specifying the ground rules of that game. However, it is important to emphasize that the strategy proposed is based upon the proposal that Type 1 health services research is primarily cognitive in nature, Type 2 involves the affective sphere in attempts to consolidate values, while Type 3 are the management, and technical activities, related to "tuning" the developed system.

The game rules for health services research

1. The game is played in an arena where the boundaries are social and political in dimension. Some of these shall be well marked (in certain areas); in others they shall shift continuously, depending upon the prevailing political winds. Penalty for playing out of bounds will result in being labelled as a radical or an idiot, and the awarding of a red or yellow card. (The color of the card depends upon the type of foul, i.e., how far out the player is.)

2. The equipment used shall be borrowed or begged from other scientific disciplines. Priority will be given to players equipped with quantitative techniques left over from the "hard sciences."

3. Any number of players may compete. They must, however, wear the uniforms acquired during their disciplinary (basic) training.

4. The objectives of the game have been previously described. Additional points can be scored, however, for dollars spent, and number of papers published. However, primary consideration will be given to the amount of noise generated by the crowd who shout their approval of specific plays.

5. The crowd shall be seated in stands that are removed from the field of play by a distance of no less than ten miles. They will depend upon accounts of the play, as provided by runners or those amongst them who have extrasensory perception (or who are actively hallucinating).

Strategies for playing the game

The strategies to be utilized in conducting health services research are derived from the following assumptions: Type 3 research (tuning or policy—related) is needed primarily after a vehicle or policy has been established. It therefore is done only after this has been accomplished. The first type of research—that is cognitive—is expensive and needs doing only a few times (somewhere but not everywhere), and *only* in a cost-effective way, when it has been decided what is possible within the field of play, i.e., what tools/facts are needed. Type 2 research, therefore, becomes of primary concern or first in priority.

In pursuing this, the following game plan is given as an example. First, the pathology present in the system must be defined. (The defenses must be read). What are the problems in health status in that population—as seen by scientists, as seen by the people, and as seen by those who must finally make decisions?

How does the present system work? What is its pathophysiology? Who gets what care for what problem? Who benefits and who pays? How much does it really cost? What are the prevailing social values and how stable are these—are they changing? Where would we like to be at time T_1, and how fast can we get there?

With this particular plan it should be possible, after some preliminary review, to identify what facts are required or what methodologic questions need resolving in order to get these answers (Type 1 research), either borrowed elsewhere or done for the first time locally. It is also necessary to then come to the key step in the strategy—how can we build research designs to test (honestly) hypotheses related to the proposed treatments we think are, a) necessary, and b) would be effective (survive) in this system (Type 3 research)? A.P.S.

I should like to come back to my tripartite view of health services research and take one mini-step into examining the various sub-sets or mixtures of types of research that exist. Those who think in set theory have already recognized that there are actually seven possible combinations of types of health services research. Figure 2 illustrates, with some specific examples, why I believe that research done in the intersect of the three areas—that one related to the cognitive, affective, and the real world—has the biggest payoff. Such studies 1) generate new data, 2) they are related to a concept or political issue (the idea maybe very old, but must appear very new), and 3) the research comes from practical settings that can be identified as places where similar activities can occur, so that the question of generalization—while it is never settled—can at least be considered. Perhaps my earliest example of personal involvement in this kind of research was the nurse clinic study con-

ducted at the University of Kansas, 1965-1967. In studying the impact of specially prepared nurses in the medical care of chronic disease-illness, a classic experimental design was used. It generated new data, but was related to a very old idea, i.e., that health care/medical care can be provided by non-physicians. The research was done in medical clinics operating in the real world. While some may feel that our current efforts in studying the impact of child-initiated care may be as ridiculous or far-fetched as turning over the care of patients with chronic medical problems to non-physicians, it also represents a health services research effort designed to impact in more than one area or constituency.

The contestants

There is one question originally posed that has not been answered. Who are the adversaries in this contest? I shall once again borrow from the social philosopher, Pogo, and point out that "We is." "We have met the enemy, and they is us." The contestants in the health services research game are the various subgroups in society who, because of different backgrounds and socialization experiences, do not share a common operational definition of health and the means of achieving it, let alone its relationship to other semi-abstractions like beauty, free choice, and dignity.

The hardest lesson for health services researchers to learn is that there is only one team on this socio-political field, and that the objective is not to beat ourselves, but to move cooperatively towards a negotiated common good so that someone in the crowd, regardless of how remote, can cry "GOAL!".

Figure 1. Types of health services research

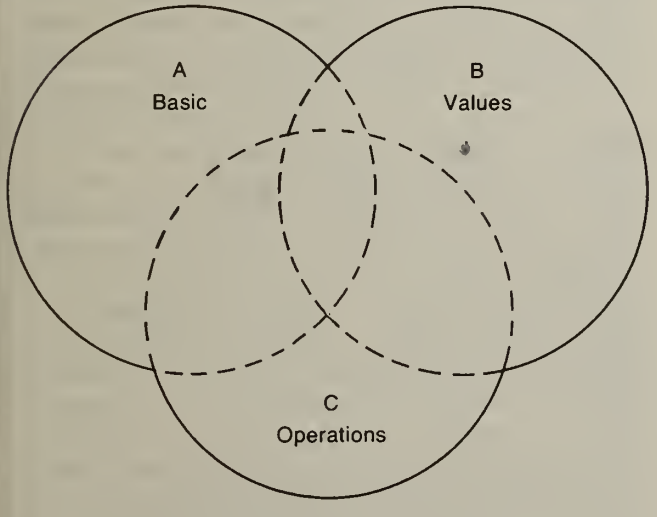
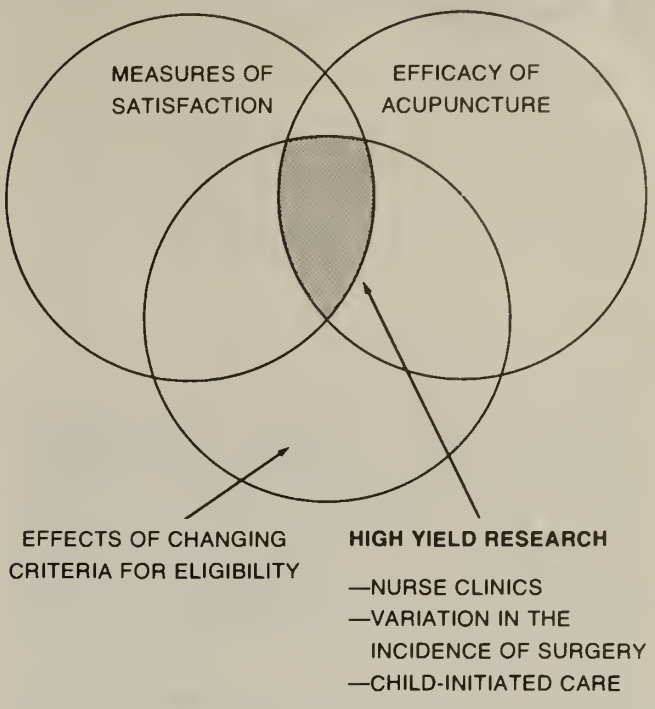


Figure 2. Sub-sets of health services research



On the Development of Health Services Research in Puerto Rico

by Paul M. Densen*

Health services research, if it is to fulfill its promise, should contribute to the development and illumination of health policy. With this as a basic premise I shall lean heavily upon the Report of the Evaluation Group to the Senate of the Commonwealth of Puerto Rico on the Development of a Universal Health System and on Steps in the Improvement of Health Services(2) as the framework for these remarks. That Report, which I shall refer to hereafter as the Mechanic Report, offers a wealth of ideas and examples of possible areas for health services research in Puerto Rico. However, I shall limit my discussion to the implications for health services research of three major concerns of the Report: (1) the equity issue; (2) the need for an adequate economic underpinning for the proposed universal health system; and (3) the recommendation that "a comprehensive program of health care for mothers and children should be initiated as the first step toward a more complete health services system for the entire population."

The equity issue

The need for a restructuring of the health system of Puerto Rico arises from the uneven access that segments of the population have to the right kind of health care at the right time. As the Mechanic Report states (p. 22), "It is clear that many thousands of Puerto Ricans are not receiving medical care or other necessary human services." Implicit in the recommendations of the Report is the assumption that more equitable access to health care of the several socio-economic groups of the population will decrease the differentials in utilization, in the kinds and quality of care received, and in health status among these groups. For health services research to test this assumption it is essential to have a clear factual picture of the size of these socio-economic differentials before and after the initiation of the universal health system.

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A first step towards developing the desired picture of the socio-economic differentials in the way in which the health system is used, the way in which care is provided and in the health of Puerto Ricans is to agree upon appropriate measures for classifying the population by socio-economic status. A number of such measures are available through the decennial census such as the distribution of families and unrelated individuals by income, the proportion of families below the poverty level of income, the years of schooling completed by individuals 25 years old and over, the occupation of employed individuals 16 years old and over, and households by mean value of owner-occupied units or by mean gross rent.

As data on the various socio-economic differentials become available it will become increasingly important to engage in studies which seek to explain the reason for the differentials or to distinguish the effects of particular health programs from those of other forces which may have an impact upon health such as general improvement in economic conditions. This is especially the case in seeking to explain differentials in utilization patterns. Greater or lesser utilization of a particular socio-economic group as compared with other groups is sometimes interpreted as meaning greater or lesser access to care. This may be so but access itself is a compound of many factors such as availability of facilities, of particular kinds of personnel, of geographic location, of the particular health beliefs of the population, etc. Thus, simply placing a neighborhood health center in an area previously lacking such a facility does not necessarily mean, for example, that pregnant women who previously sought prenatal care very late in pregnancy will seek care in the first trimester in their next pregnancy. All that may happen is that those women who previously sought care early in pregnancy simply shift the place in which they seek care, but the proportion of all pregnant women seeking early access remains the same.

An example of the kind of study which seeks to assess the effects of a particular programmatic effort to improve the health of a low socio-economic group is afforded by the work of Gordis (1) in

evaluating the effectiveness of a comprehensive care program in preventing rheumatic fever among the population of the inner city of Baltimore. The abstract of that study states:

> "The rate of rheumatic fever for comprehensive-care tracts in 1968–70 was about ⅓ lower than for the rest of Baltimore. From 1960–64 to 1968–70 rheumatic fever decreased 60 per cent in comprehensive-care tracts but was unchanged in the rest of the city. The declining incidence in Baltimore resulted entirely from a reduction of preventable cases preceded by clinical respiratory infections although bacteriologic data were not available. The findings thus suggest that comprehensive-care programs have been the critical factor in reducing the incidence of rheumatic fever in the inner city."

Thus the ability to classify both the population and the users of the health system by socio-economic status can contribute not only to an understanding of the dimensions of the problem among different groups of the population but also to the development of specific programs designed to deal with the problem and to the assessment of the effectiveness of the programs.

The need for an economic underpinning to the health system

Another important question which the Mechanic Report considers is that of the economic resources available on the Island to implement the program set forth in the Report. "It would" say the authors, "be foolhardy . . . to prepare this report without an awareness of the serious difficulties in the Puerto Rican economy." There would, in fact, be little point in attempting to lay out a strategy for health services research if there were not also a strategy for providing the necessary resources for the health program itself. The report suggests an approach to the provision of such resources. It seems appropriate, therefore, to consider some research activities related to understanding the economics of the health system and its relation to the general economy.

Both in planning for and evaluating the effectiveness of policies designed to improve the organization and delivery of health care, it is important to know just how much money goes into the health system, how much comes from public and how much from private sources, which groups of the population—children, mothers, the aged, the disabled, etc.—are the recipients of the funds, and what services—physician, nurse, hospital care, ambulatory care, etc.—are purchased. In other words, it is desirable to develop a picture of the flow of funds in the health care system and to have this information by socio-economic status. If the policy recommendations of the Mechanic Report are put into effect they should have a major impact on the allocation of resources as reflected in the pattern of the flow of funds and in the distribution of expenditures for the various kinds of services among the socio-economic groups of the population.

Some data from a recent study of health expenditures for children 0–4 in Rhode Island may help to bring out the desirability of examining more closely the relationship between resources expended upon the health system and output of the system.

In 1972 in Rhode Island 8.2% of the children 0–4 fell in the poverty group yet they accounted for 14.5% of the expenditures. On a per capita basis (Table I) the poverty group accounted for approximately three times as much expenditure for hospital care as the high SES group and over twice as much as the low SES group. On the other hand, out of hospital physician services show no clear trend by SES, although the poverty group figure is considerably lower than any of the other three groups.

The numbers in a similar table for Puerto Rico would probably look quite different. However, the availability of this kind of information raises a number of questions with both research and policy implications having to do with the most effective allocation of resources. Is there a shortage of dollars in the absolute sense or is it the way in which the dollars are distributed which represent the problem—or, as seems likely in Puerto Rico, both? In any event the recommendations of the Mechanic Report call for a major shift in the allocation of resources. It would likely be desirable to keep track of that shift in a manner somewhat like that in Table 1.

The fact that proportionately more of the health dollar is spent on the poverty group raises the question of whether this is because they are sicker than children in the other groups. Perhaps if proportionately more money were spent on physician services, on out of hospital and preventive care, as recommended by the Mechanic Committee, the incidence of illness in the group would be lessened and the more serious consequences averted and the total bill might be less. This, in turn, raises the question of the relationship between input to the system (resources) and output of the system (health). The changes recommended by the Mechanic group are so extensive that we may be able to get a clue to this relationship by carefully examining the changes in the flow of funds alongside of the changes in health status. We may also want to follow up any such clues by careful delineation of both the input and output sides of specific programs under conditions which permit isolating the effect of specific programs from other influences on health status.

TABLE I. Per capita expenditures for personal health services by type of service and socio-economic status, Rhode Island children 0–4, 1972

Type of Service	Socio-Economic Status				
	High	Middle	Low	Poverty	Total
Hospitals	75.94	93.00	110.59	229.42	197.37
In-patient	(66.49)	(81.05)	(92.08)	(195.80)	(93.81)
Ambulatory	(9.45)	(11.96)	(13.51)	(33.63)	(13.56)
Mental Health	7.15	7.21	6.97	8.07	7.23
Hospital	(6.61)	(6.53)	(6.30)	(7.37)	(6.58)
Other	(.54)	(.68)	(.66)	(.70)	(.64)
Physician Services	56.04	62.65	65.33	67.32	62.74
In-patient	17.28	(19.34)	(24.38)	(35.86)	(22.20)
Ambulatory	38.76	(43.31)	(40.95)	(31.46)	(40.54)
Dental Services	4.93	3.74	3.43	1.95	3.87
Other Professionals	.71	1.55	3.02	7.83	4.40
Drugs & Sundries	23.04	20.47	18.41	16.69	23.53
Government Public Health Activities	1.78	2.38	7.99	20.09	6.49
Other Health Services	2.04	1.96	4.89	38.18	5.84
Total	171.63	192.96	220.62	389.54	221.47

Information such as that shown in Table I provides a snapshot of the population. Perhaps another way to examine what the health dollar buys will be to trace a cohort of births classified by SES over several years to see what resources are used, when and how they are used and what changes take place over time in the health status of the sub-groups within the cohort.

Table I also leads to the question of whether one is more likely to improve the health status of the poverty group by improving their economic status than by spending more money on health programs. While I can raise the question, those better versed in economics than I will have to suggest ways of designing the appropriate experiment.

In the past two decades there has been considerable expansion in the industrial capacity of the Island. If the economic base required to support the health services is to be adequate, continued expansion is essential. But, the experience of the United States as a whole has clearly shown that unplanned industrial growth brings its own set of problems. There is both a pressing need and an unusual opportunity for research into the most effective means of preventing the less desirable health effects of industrial expansion. Are air pollution, water pollution and exposure to hazardous substances necessary concomitants of industrial expansion?

Leading cancer experts assert in recent newspaper reports that a large proportion of the cancer problem in the United States is a result of unfavorable factors in the environment, particularly the working environment. What kinds of early warning systems can be set up to detect the early stages of occupational diseases? Must one wait until there are overt manifestations of cancer? Until chronic respiratory disease is far advanced? What about the question of job satisfaction and mental illness and of the relationship between illness in the family and productivity of the worker? What kinds of economic or other incentives can be employed to induce industry to install preventive devices and practices in the work environment which encourage the worker to protect and maintain his own health and that of other members of his family? These are all areas of imaginative research which could have consequences of value both to Puerto Ricans and to workers in general.

It is important that attention be paid to the health problems of industrialization concomitant with the adoption of a universal health program because otherwise various policies for improving the economic base for health services may be adopted without considering the impact of these policies themselves of the health of the population.

A comprehensive program of health care for mothers and children should be initiated as a first step

Having been privileged to work with my fellow panelists over a number of years I am fairly confident that they will have a number of suggestions

for the development of health services research strategy in this area. There are, however, two aspects of the programs for mothers and children which I wish to comment upon as subjects for health services research. One has to do with outreach services; the other with the relationship between school health programs and the delivery of health services generally.

The Report mentions the desirability of developing outreach programs designed to increase the probability that mothers and children do receive the benefits of the proposed program. A fruitful area for health services research would be experimentation with the relative effectiveness of different outreach strategies. Is outreach more effective when it is done by professional workers such as nurses or social workers or when it is done by non-professionals indigenous to the community who do not follow particular patterns of thought and behavior arising from professional training? The employment of the latter group would attempt to build upon the sociological observation that one should take account of the mores and cultural patterns of a population in attempting to forge an effective link between the population and the health services delivery system. This observation has been made largely about homogeneous, agricultural populations. Attempts have been made to apply the principal to complex, urban populations but there is room for further experimentation, particularly in the Puerto Rican setting.

There is also the question of how these outreach services are to be paid for. A number of studies, such as those of Haggerty and his colleagues in Rochester, have shown the difficulties of providing a comprehensive well-integrated program of services for mothers and children because of funding policies which do not provide for reimbursement for outreach services. What alternative approaches to funding outreach programs can be suggested? What is the relative effectiveness of each of these in reaching the target population and in contributing to their health status?

It may be that different forms of outreach would be desirable for different types of problems. It is an epidemiologically well proven fact that women who have difficulties during pregnancy are at much higher risk of having difficulty in subsequent pregnancies than those who have had normal deliveries. But the women who have difficulties during pregnancy are readily identified, particularly if they are delivered in the hospital. Should efforts be made to follow these women regularly to catch them early in pregnancy and to make every effort to see that they come under care early and that they receive high quality care? What is the impact of such a program on the outcome of pregnancy and on the health of mother and child?

Would any advantage accrue from linking the outreach program to the provision of other services to the population such as food stamps or other kinds of social services? There is considerable literature concerning the relationship between proper nutrition during pregnancy and the outcome of pregnancy. Can programs designed to provide adequate food for the population be linked to programs designed to provide adequate health services? If so, what are the health benefits of such linkage?

Although the relationship between nutrition during pregnancy and the outcome of pregnancy has been fairly well established, the relationship of such nutrition to the subsequent development of the child needs further investigation. The opportunity to follow mothers and children over long periods of time may exist in the suggestion made in the Mechanic Report that the University consider setting up an experimental population laboratory in which to carry out certain forms of research. Such an experimental laboratory would provide the opportunity to look at such questions as the relationship between care of the mother during pregnancy, the effect of various educational programs, etc. and the subsequent development of the child.

Let me turn now to the school health program. In the United States school health programs are deplorable. There are exceptions, of course, to this generalization, but by and large the school health programs leave much to be desired. It becomes clearer and clearer as one studies school health programs in various parts of the United States that there is a lack of continuity of care for the child, a lack of communication between the teaching staff who are in the best position to recognize problems in the child and the health professionals, and a lack of communication between the parents and the practicing physicians and health programs of the community.

At the same time there are a number of studies that have shown that it is possible to recognize in elementary school, if not earlier, children who are at high risk of having major health problems in early adulthood or at later ages. This being so, the question arises that if one can recognize these children what should be done about them? This raises the whole question of the interrelationship between the school health program and the rest of the health delivery system. The Mechanic Report suggests that there be experimentation with HMO-types of programs for the delivery of health services. One might consider the possibility of placing the responsibility for the school health program and its integration with the rest of the health delivery system in the HMO or in the regional health centers. This is an area which would be quite appropriate for the University to experiment with in the suggested population laboratory.

Summary remarks

I have mentioned here only a few of many possible subjects and problems which could be addressed in a program of health services research for Puerto Rico. I have turned frequently to the Mechanic Report as a source reference. The Report itself is a mine of information with many nuggets contained in Chapter 6 on "Information Systems and Evaluation." This chapter points out that "accurate information is not only necessary for allocative processes and planning and to achieve reimbursement under a variety of Federal programs, but also for the formulation of alternative programs and for evaluation of their impact on the population." It discusses various means by which the necessary information can be developed including the Master Sample Survey. Implementation of the recommendations in this chapter will make possible a wide range of health services research activities.

Health services research in Puerto Rico will not suffer from a lack of opportunity. Rather, the problem will be how to choose from the abundance of riches offered. Priorities will have to be set. A key factor to be considered in setting these priorities is to keep the research as simple and manageable as possible as well as useful and timely. It will help to try to visualize the relationship of the research to the policy questions facing those responsible for the development of the Universal Health System for Puerto Rico and to consider what research would help to clarify the alternatives open to the policy maker.

The prospect is wide and exciting.

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Summary of Open Discussion Following the Presentations of Professor Shapiro, Dr. Lewis and Dr. Densen

The session opened with a discussion on the ways in which relevant and direct information could be obtained. One such example was on the effectiveness of prepaid group practice; that is, on the quality of care.

Some stressed the importance of information systems that could be used to generalize to defined populations.

Agreement was expressed as to the potential usefulness of the Master Sample Survey in Puerto Rico, although at the present time it has some drawbacks. One participant throught that the Master Sample needed revisions in terms of population distribution, specifically with respect to the rural-urban distribution which has changed. He was informed that the sampling frame is continuously updated, thus keeping up with whatever population changes occur.

Another source of information mentioned was the Medicare forms. Apparently the problem in Puerto Rico doesn't seem to be the lack of sources of information, but the knowledge of how to analyze and use the information.

The condition of statistical systems in the Island in terms of the lack of coordination among government agencies and resultant duplication of data was noted. Furthermore, the emphasis of government data is on input data rather than output data, e.g., how many hospital beds are in use and how many visits were made to a health center rather than how many patients got well and were able to return to work.

The importance of defining health services research was brought up, but others agreed that the definition, per se, was not an issue. The issue should be whether the ultimate measures used are sensitive to health care variation. One such measure could be the degree of disability and other outcomes of health care, such as physical independence. Also important are measures of minimally adequate care to meet health care needs, as employed by Dr. Cordero in her study at Comerio.

The area of health care needs and equity could be an important area of research, as well as whether the needed care is a social responsibility.

Another area brought up for discussion was the measure of efficiency of investments, especially since resources are limited and measures of efficiency could be important.

The discussion ended indicating the need to reach consensus in terms of which measures ought to have priority.

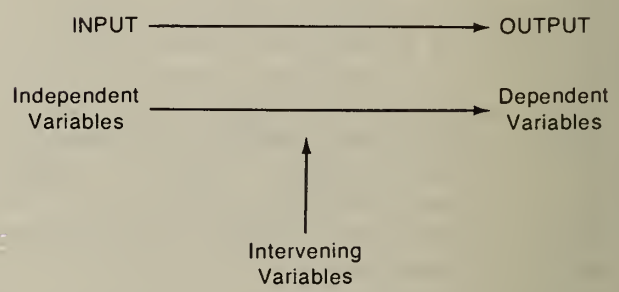
Program Evaluation as Health Services Research

by Robert J. Haggerty*

One of the major issues in Health services Research today is the evaluation of the overall effectiveness of health programs. Health Services share with other complex human services a considerable amount of difficulty in arriving at precise measures of outcome of a program. It has been difficult enough to carry out controlled clinical trials with medications, but these are relatively simple research problems compared with attempts to measure the overall effects of a whole program. Lest we in Health Services Research think that we are the only ones with these problems, let me quote from the introduction to a recent book on evaluation studies. "The methodological and philosphical literature on evaluation is distressingly repetitious. Writers in one field exhume the same dead horses that writers in a second field interred years before. One who reads widely is in jeopardy of gagging from repeated swallowing of dry banalities about how evaluation can be distinguished as either "processes" or "outcome" or how relationships between program personnel and evaluators must be handled sensitively, or how evaluation must serve decision makers. Scholars in each new area of evaluation need not lumber xenophobically up the evolutionary ladder, acting as though the problems in their field are so unique that no one could have addressed them before.[1] I will probably labor up similar ladders in this discussion, but by relating some of the practical evaluating efforts in which I have been engaged I hope to illustrate how to overcome some of the problems.

The conceptual framework for evaluation research is not difficult. It is the practical problem of carrying out the project that creates the difficulty. In general, the theoretical framework consists of measuring input and relating it to output or outcome. Workers in the field have made the useful distinction between "formative" and "summative" evaluation; "formative" being that carried out during the course of developing a program to assist in the improvement of the input or independent variable, and "summative" being the evaluation of the outcome or effectiveness of the program. Figure I below presents this simple conceptual framework with which all are familiar.

Figure 1. Conceptual framework for evaluation research



There is no doubt that the controlled trial is the most powerful tool in evaluation of programs. Human service programs such as medical care have many unknowns in the independent variables and the random assignment of subjects or groups to treatment and control groups overcomes or neutralizes many of these unknown variables, but the problem is that random assignment of people to experimental and control health care programs, in contrast to single therapeutic treatments is in the real world, exceedingly difficult. Most of the evaluation research in the health services area cannot have the luxury of a controlled trial and alternative strategies and compromises must be made to effect a reasonable research outcome. It is too simplistic to say that it is not worth evaluating a program unless one can do a controlled trial. There is no avoiding the issue. Anyone who wishes to improve health services must engage in or support good evaluation of existing programs. The issue is not whether to do evaluation or not—there is always evaluation (some would call it biased opinions on which decisions are made), but the issue is to make as good a compromise in the existing real world situations as possible.

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Evaluation research is not an academic exercise, but must be carried out in the political and social world where the ultimate goal is to improve the program or to develop a better one.[2] Thus, evaluation research is action research. The well known and simple steps in evaluation research are shown in Figure 2 below.

Figure 2. Steps in evaluation research

1. Specify goals, objectives, underlying assumptions of program.
2. Describe program (Independent Variables)
3. Define criteria for goal achievement (Dependent Variables)
4. Develop and carry out measures of achievement.
5. Describe intervening variables - the political and social melieu.
6. Analyze results
7. Implement findings

I. Specify the goals' objectives and underlying assumptions of the program

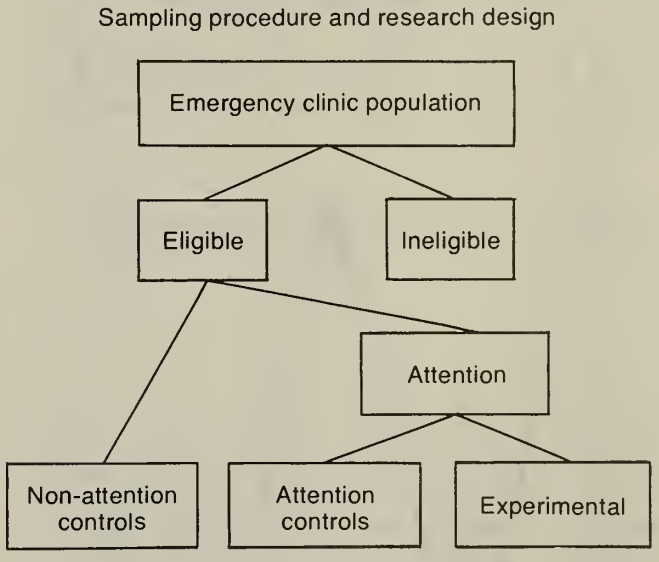
The first step sounds simple, but I have found it exceedingly difficult to translate broad goals into measurable specific objectives. For instance, in the project which I will mention shortly, we were interested in determining whether a family focused, coordinated team type of family health care would result in better health for the children as compared to traditional emergency room and hospital out-patient department care. We found that this goal was made up of several sub-goals which needed to be specified in advance, if they were to be effectively measured. If a program has been in place for some time before evaluation is carried out it becomes even more difficult to specify what the original goals were. But the effort is essential if one is to know what to measure.

II. Describe the program—define the independent variable

In most health services research one does not have the luxury of developing and designing the independent variable, much less carrying out a random assignment to test the effectiveness of that variable. My colleagues and I in Boston some years ago had the opportunity to do just this, however. For reasons I will outline later, I doubt that many other such random control trials of overall programs will be done in the future.

The goal of this family health program was to determine if family focused child health care delivered by a health team would result in better health for the children as compared to the traditional fragmented emergency room and outpatient care for an indigent population.[3] Figure 3 gives the research design. We were able to design the independent variable to consist of pediatricians who had just finished their residency, and were in fellowship training with us, providing the medical care, together with experienced nurse practitioners and medical social workers to deliver family focused, preventive oriented and continuity type of medical care to a random selection of families for three years. The results were compared to a control population who received their medical care from the medical emergency room of a distinguished children's hospital which was staffed by pediatric residents, and from city health department well child clinics where there was no continuity, no family focus, and little attention to prevention or social psychological issues. The dependent variable or outcomes were measured at 6 months intervals by household interviews and by record reviews from the hospitals to determine morbidity.

Figure 3. Boston family health study research design.



The first disappointment was that there was no difference in the morbidity between the various groups during the time of the experiment. (Figures 4 & 5) In retrospect it was clear that in a population of this size (some three hundred families or about 1,000 children in each group) one could not expect too much in the way of preventable disease to be demonstratable. However, there were considerable differences in the utilization of health services, costs and satisfaction of the recipients between the various groups. Figure 6 shows that hospital admissions, after an initial increase due to treatment of previously undiagnosed

Figure 4. Boston family health study morbidity

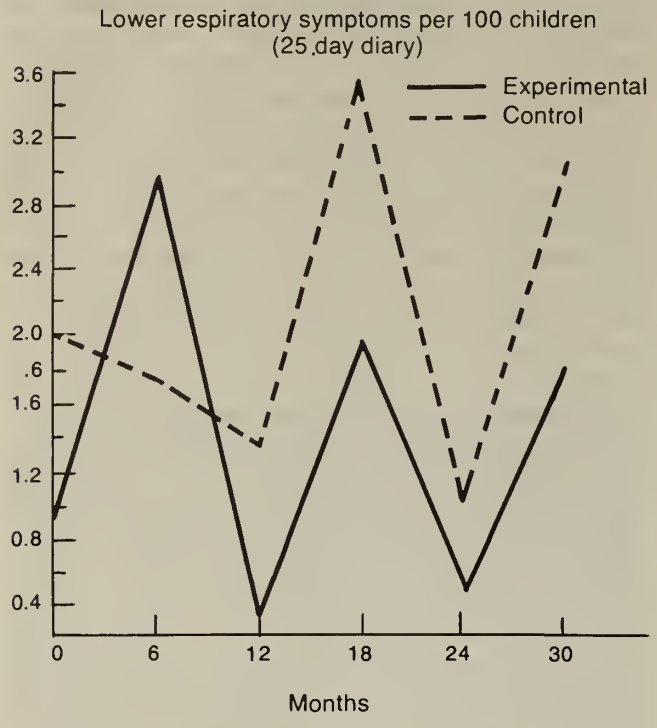
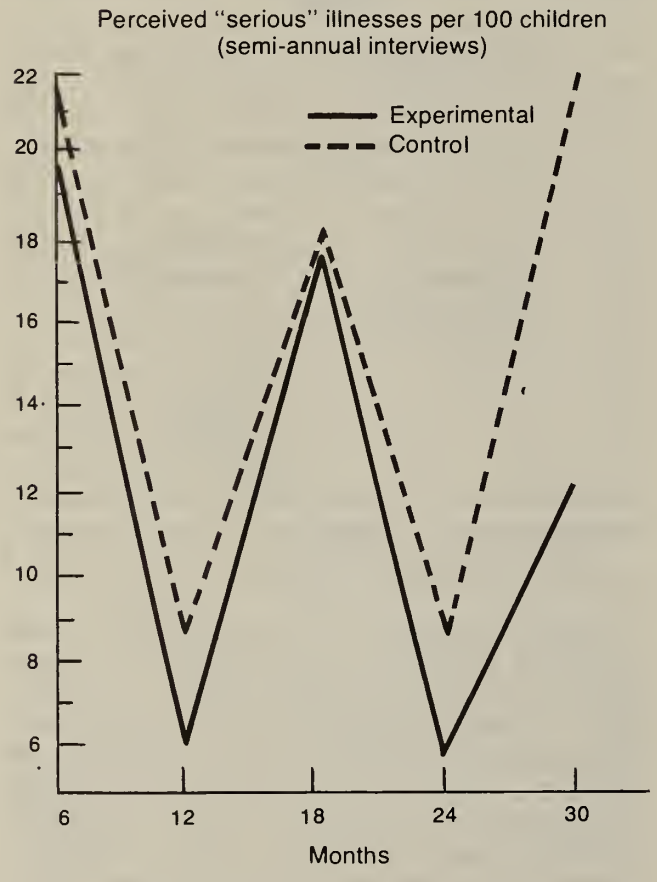
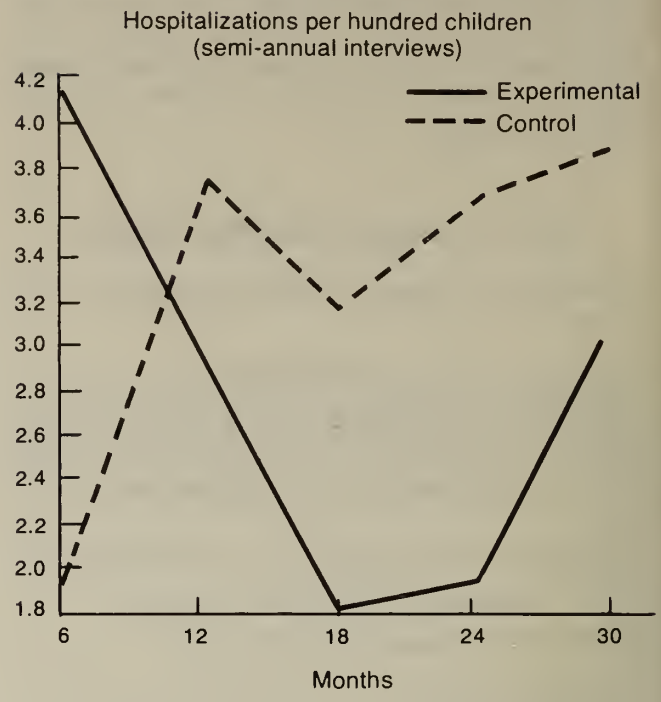


Figure 5. Boston family health study serious morbidity



and correctible conditions (especially hernias and strabismus) were much lower in the experimental group throughout the remainder of the study period. Preventive services were delivered in al-

Figure 6. Boston family health study hospitalizations



most double the volume to the experimental group. (Figure 7) Laboratory procedures and prescription costs were generally much lower in the experimental group. (Figure 8)

In spite of several important findings from this study, one can easily see some of the problems in this type of evaluation. There was a very small number of highly selected physicians providing the experimental program and even a smaller number of nurses and social workers. The independent variable was, therefore, very idiosyncratic and results difficult to generalize. Even with the small number of providers and small number of families, it took a large research staff, consisting of two sociologists and two physicians plus interviewers, administrative staff and data analysts to carry out this study and the total cost was close to one half million dollars over the five years of the project (three years of actual experiment plus a year gearing up and a year in analysis). Even with such a small number of providers (independent variable) we had considerable difficulty guaranteeing the quality from one provider to another and anecdotal evidence shows that there were many failures to deliver the ideal of care that we sought.

In most large scale national evaluation studies such as those of Head Start or of enriched educational programs (usually programs numbering hundreds) there is even a greater difficulty controlling the quality of the independent variable. In many such national evaluations, the results are disappointing. One will typically find that in about half of the programs children show some benefit as compared to previous programs while half of

the programs show no benefit or even a loss. The question is then how to interpret these results, especially when one has no real information about the quality of the independent variable actually provided. One important lesson from such evaluations of large numbers of programs is that one should look at the outlyers, not just at the means of results and then ascertain if there were differences in the services provided. But as soon as one tries, you have to ask the question "What was the difference in the independent variable?" Was it in the setting or in the personnel and leadership?

One way to define the differences in the independent variable, even when one does not have control, it to use on-site reporters, skilled anthropologists, who use the techniques of participant observation, and will keep careful records and diaries of what actually went on in the programs. This can be difficult since, as we found out in evaluating a neighborhood health center in a later study, when we did have such an anthropologist on-site there was a tendency for this researcher to identify with the workers in the health center and to be reluctant to objectively report on what actually went on because it seemed to her to be a breach of confidentiality.

The difficulty of defining the setting in which the program was carried out is frequently encountered. A recent experience of the PSRO implementation in the U.S. is an example. Some two hundred of these new programs, to assess the quality of health services rendered, were developed in a short period of time. Several of them argued for some type of planned experiment, with collection of before as well as after data, and systematic assignment to certain geographical areas of the new programs while keeping other areas as comparisons. But we were overruled for political reasons

Figure 8. Average laboratory and drug charges per diagnosed illness—first visit (In dollars)

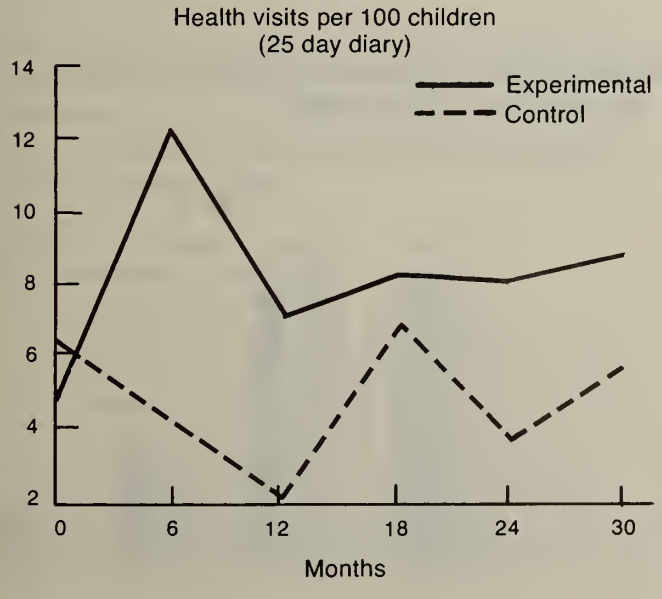
Diagnosis	Experimental Clinic Group*	Emergency Clinic Contect Control Group	Emergency Clinic Noncontect Control Group
Upper respiratory infection	1.95	5.34	4.69
N =	326	213	185
Otitis media and externa	4.84	7.21	6.78
N =	304	248	185
Tonsillitis and pharyngitis	3.04	5.00	4.17
N =	255	202	131
Steptococcal disease	4.76	4.99	4.68
N =	102	62	37
Pneumonia	14.17	26.64	25.53
N =	30	28	34
Asthma	4.92	12.58	7.48
N =	25	38	43
Other respiratory diseases	3.38	11.40	8.22
N =	80	45	55
Gastrointestinal problems	2.16	5.10	7.30
N =	128	101	66
Trauma	3.30	5.97	4.40
N =	288	390	274
Measles, chicken-pox, mumps, etc.	1.41	5.04	4.07
N =	142	80	77
Skin problems	2.41	2.57	3.59
N =	223	150	115
G.U. problems	5.95	11.00	5.88
N =	19	26	25

N = Number of diagnosed cases.

* Includes cases met in the emergency clinic by the family health physicians.

Source: Compiled by the authors.

Figure 7. Boston family health study preventive visits



and of course the very reasons why some areas of the country elected to develop these programs early made them quite different than the areas not so served. In the absence of randomization of the independent variable, the best that one can do is to look for spontaneous variations in the programs. Then one can try to match for other variables using the multi-variant matching technique. While not entirely satisfactory such matching is better than not matching.

In spite of all these difficulties with the independent variable it is well to remember Kurt Lewin's comment that "One way to understand the system one is evaluating, is to try to change it." I would hope that in more instances in the future health services research attempted, actually, to change the independent variable and measure the results as well as to evaluate in a more passive way changes carried out by others.

At the other end of the spectrum of types of evaluation research, there needs to be a good deal more secondary analysis of data already reported. It would be very fruitful to evaluate the published reports on a series of similar programs and to tease out similarities and differences in the independent variable as well as the outcome. From such secondary analysis of a large number of reports one can frequently discern that relatively few factors influence the outcome (the Pareto Principle) while a great many other factors prove largely irrelevant. It is also useful to look for small and specific outcomes rather than global, overall program effects.

III. Define and measure the dependent variable

The difficulties encountered with measurement of the dependent variable is not only the reliability and validity of the measures used, but even more important the issue of what to measure. The first step is to get those who are in charge of the program to specify what changes they would expect to find as a result of an optimal functioning of their program and then to develop reliable and valid measures to ascertain whether the objectives have been achieved. But there must also be creativeness on the part of the evaluator to look behind the stated objectives for the unplanned consequences and to measure these as well. Herein lies the major skill of the evaluators' art. Often developing such measures will require that one settle for less important or smaller outcome measures but ones that are measurable.

Let me give you now some examples from our studies of the first Neighborhood Health Center in Rochester.([4]) The independent variable was a rather new neighborhood health center - multidisciplinary team of physicians, nurse practitioners, and family health assistants providing comprehensive health care to an indigent population in a defined ghetto area. The overall goal of the project was to improve the health of the population. However, after a considerable number of attempts we had difficulty measuring health status and, for what measures we could obtain, we could find no differences before or after the health center was started or in comparison with another population area. We, therefore, settled for a considerably less important but measurable series of outcomes. The first outcome addressed the question, "Does the health center actually serve the population?" Figure 9 indicates the enrollment in the health center. After several years over 80% of the total target population had been reached. The second goal was to reduce the dependency of users of the health center in the area on the emergency rooms of adjacent hospitals. Figure 10 indicates that, indeed, for children the reduction in use of emergency

Figure 9. Rochester neighborhood health center registration

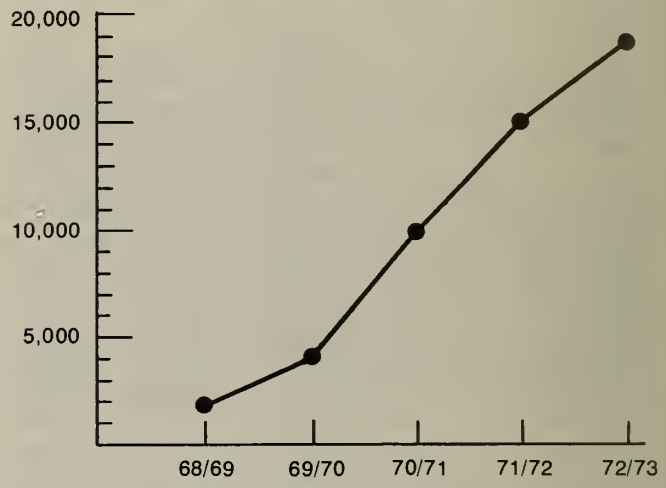


Figure 10. Rochester Neighborhood Health Center—Effect of center on emergency room use (7th ward health center, 3rd ward comparison area)

Emergency room utilization rates by Monrow County residents, 1968, 1970, 1972 by area of residence

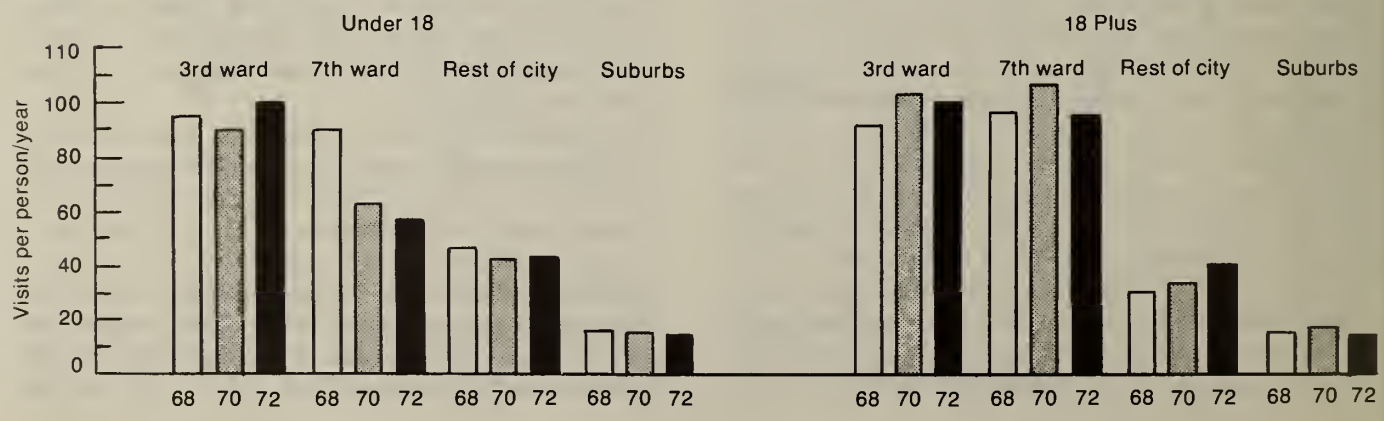
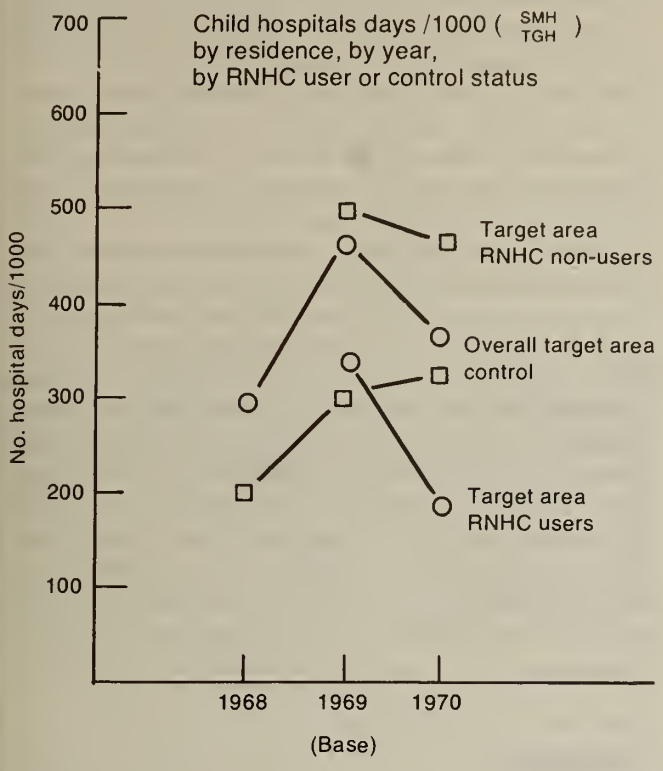


Figure 11. Rochester Neighborhood Health Center effect on hospitalization days



rooms for residents of the target area (7th Ward) as compared to a similar population in another area of town, but one without a health center, was rather significant. However, this study also shows that for adults there was no reduction in emergency room use. The third goal was to reduce unnecessary hospitalizations. Figure 11 shows the results for children and demonstrates rather clearly that for those who used the health center there was a significant reduction in hospitalizations.

In neither of these evaluation studies did we measure health status. We only measured incidence of morbidity. In the future evaluations we will not be able to avoid measuring health status. While it is widely recognized that health services have relatively small impact on health status, better measures to ascertain this most important outcome will be necessary and deserve high priority in health services research.

IV. Intervening variables

A brief example from our Boston study will suffice to illustrate the importance of the intervening or confounding variables. We started that project in 1964. During the third year of the project a national financial assistance program for indigents (the Medicaid Program) was instituted. This provided indigent families in our program with a ticket to go for care anywhere they wished. But even more important was that at this very period of rapid transition in Boston, the area from which we recruited the experimental and control group was undergoing a rapid shift from white, lower middle class population to black southern immigrant population.

Most of our original patients moved out of the area, and distance as well as the new method of paying the doctor made a considerable difference to the program. The fact that fewer people left the experimental than the control program was interesting, and reassuring to us. But the intervening variable of Medicaid and rapid social change influenced our results and probably accounted for the increase in hospitalizations occurring during the third year in the experimental program, since most of those hospitalizations occurred after initial contact with medical services outside the experimental program.

The point is that all evaluation of health services goes on in a political climate and not in a controlled research laboratory. In fact it is often these political intervening variables that one is most interested in studying. Even when broad social changes and political climate are not an issue, program evaluation of an agency's performance or a health center, a hospital, or a new chronic disease program always raise the political threat to the people in the operating program. The goals and values of the evaluator and of the program administrator are thus often in conflict in this situation.

V. Analysis of the data

I will say little about this important aspect of evaluation, except that in analyzing the multiple outcomes the use of sophisticated multivariant regression analysis is of great use to determine the importance of various factors in the outcome.

VI. Implementation of the findings

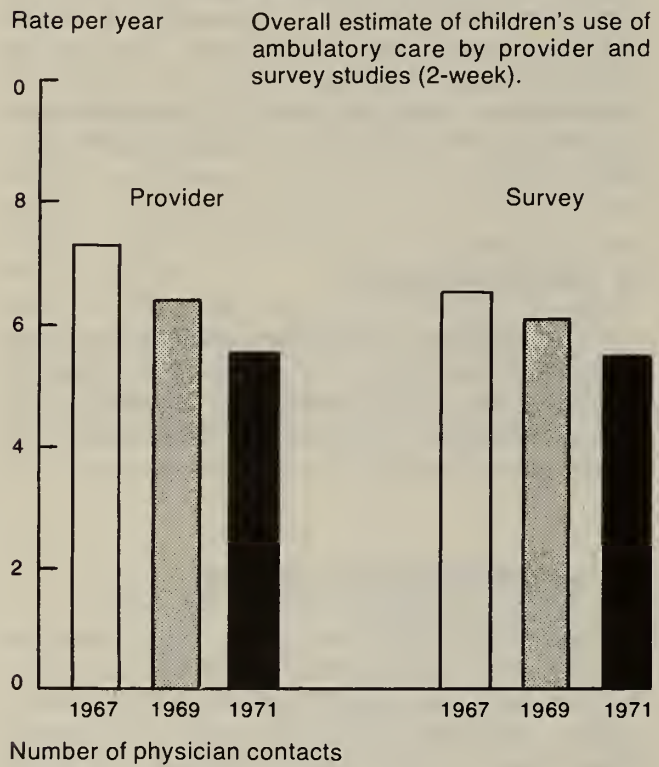
Finally there is the issue of the overall purpose of evaluation research. Essentially evaluation is action research and should lead to some implementation. Therefore, there is the need to see before the project is completed, just how the results will be used. In a current project of ours in which we are evaluating several community child health programs throughout the nation, we have explicitly engaged the Kennedy School of Government to recruit a faculty member who will assist us in the implementation of the results. We already have plans for a series of meetings (with local officials in health departments, health planning agencies, and political groups), in which we will present the results of the study with a series of

options. In addition we plan a series of seminars with congressional health staff workers and meeting with professional health care evaluators. Thus, in addition to the usual expected publications, we will attempt to influence the major decision-makers about the effectiveness, or lack of such, of existing child health programs in the country and ways they might be improved.

Figure 12. For a program to be worth evaluating:

1. Those in charge of a program must set objectives that are measurable.
2. There must be testable assumptions linking program activities to accomplishment of objectives.
3. Those in charge must have the incentive, motivation, ability, and authority to run the program (to alter resources, tasks or objectives)

Figure 13. Rochester child health studies changes in utilization



Finally there is the issue of what programs are worth evaluating. Figure 12 is a partial checklist for the ertstwhile evaluator.

The caveats and problems that I have raised may make it appear that evaluation research is a very risky business and one largely involved with analysis and minor adjustments in an on-going program, rather than in measures of outcome of importance to health. While that is often true, I also believe that creative and innovative efforts in evaluation can also lead to significant insights into what works and what does not. It may also seem that such research is *ad hoc* and empirical, but the best of evaluation can lead to the development of new theories and to major changes in human services programs. Figure 13 shows an unexpected finding in our Rochester studies. It is conventional wisdom that increased availability and decreased price (Medicaid) will lead to increase in the use of health services. Yet, in Rochester where such barriers were reduced, we were suprised to find that use of health services per child actually declined. Clearly, sometimes old theories must be reexamined as a result of evaluation.

Conclusion

Evaluation research is a central part of health services research. It is still an art form as well as a science, but one that must lead to action and implementation and may lead the curious investigator to develop new theory as well as pragmatic program change.

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Research Issues in Puerto Rico

by Guillermo Arbona*

Written material has been distributed describing health conditions, resources and organization in Puerto Rico. A summary of the reports of the Commission appointed to Study Health Insurance as well as that of an advisory Committee to the Legislature on the same subject were included. At this stage of the Conference many of the issues have been generally and some specifically referred to. For this reason only a short introduction is considered necessary.

In proceeding to prepare this presentation a very succint review of the literature has been made. A number of informed persons who are in or have held key positions in the delivery of health care services in Puerto Rico as well as a number of persons from the outside who have a manifest interest in understanding and appreciating the local situation have been interviewed. The author has of course relied greatly on his own experience in the field trying hard to be as objective as possible.

Quite a long list of research issues, of questions that should be answered was made. For the purpose of this presentation they have been grouped in categories; the list is incomplete. The nine categories closely relate to each other.

The order in which the issues are presented has no particular meaning.

I- Content of health services health needs, demands and utilization of health services

In Puerto Rico, as anywhere else, the organization and content of health services should respond to the health needs of the residents. If this statement is accepted the health needs of the residents should be assayed.

Demand for and utilization of health services together with available mortality and morbidity data constitute reflections of the needs. Similarly does knowledge of environmental risks, both of the physical as well as psyco-social environments that people share define needs. Improvements can be made in retrieval of information on all these aspects and especially in the analysis of the retrieved information so it may be translated into as good an assay of health needs as may be possible.

Research in the above areas can be very helpful in determining health needs. This in turn should be helpful in better determining the content of Health Services that should be made available at the different levels of the health care delivery system, primary as well as intermediate.

The above-mentioned steps however, are not sufficient to assay health needs, and better ones need to be designed, tried and evaluated. The biggest drawback is the limited participation by the users of the services in the determination of their own needs and in the determination of the priority in which they should be satisified.

Communications between providers and users in Puerto Rico as in many other places constitute a serious difficulty that has many facets. I'll refer to only two. The most important one is probably language or vocabulary. Our providers do not always understand the message the user wants to transmit as to his health needs and the user does not always understand the provider's language. The provider usually has been trained to diagnose and treat physical ailments and has many fixed ideas on what the health needs of the people are and how they should be dealt with.

There is also a factor of special importance in the public service which is also worth considering in the private one. The demand for services is greater than that which can be met by the relatively small number of professionals available to provide them. Deficiencies in the organization and the impatience to which patients (clients) have become accustomed do not favor adequate communication between providers and users. This leads to a vicious circle since deficient communications between providers and users lead to deficient morbidity information.

II- Psycho-social pathology

The morbidity experience of the Puerto Rican people today is quite different from what it was 30

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years ago. This is in part evidenced by available information and in part suspected. Morbidity due to communicable diseases have been substituted for by long-term illnesses and psycho-social pathology. To what extent has this been so, especially in connection with the latter, is not well known.

The general impression of knowledgeable citizens is that this has been so to a great extent, but the extent remains a riddle.

As a result there is almost an epidemic of often conflicting opinions. This may be considered a necessary stage in the process. Objective knowledge is however badly needed to improve planning and hence the content and delivery of services.

Very elaborate, complicated and costly programs have been designed and are being operated. These include programs dealing with drug addiction and alcoholism, mental health, alimentation, family planning and others. There is a high degree of fragmentation. The family in urban as well as rural areas is being confused by the intervention of personnel from different agencies and programs usually interested and capable of dealing with only one aspect of the family's needs.

Studies in this area should help determine to what extent health services should be expanded and their content altered to better focus on prevailing psycho-social morbidity both from the preventive as well as curative points of view.

There are of course, many other questions for which answers are needed. Should health services including psycho-social services, be delivered similarly in urban metropolitan centers and in small semirural communities? What kind of collaboration should exist at the different levels between social and health programs?

III- Human resources

The paradoxical situation Puerto Rico will be facing in the near future if it is not already facing it, is one of surplus in trained health manpower in some technical areas and a scarcity in others of having personnel trained to satisfy some needs and not others; and of having professional and technical personnel available that the economy of the country can hardly afford to finance. This parallels the paradoxical situation of a suspected surplus and perhaps over utilization of services in metropolitan high income centers and a severe scarcity in semirural areas as a result of maldistribution of resources. This is closely related both to our economy and our system of social and political values. It points out serious difficulties in joint planning and implementation between service agencies and educational institutions.

The extent to which manpower development can be planned to meet service needs equitably in a capitalistic society that has adapted the democratic principle of free enterprise and individual freedom has to depend on indirect means.

In the United States, and the same is true in Puerto Rico, the mechanisms have to be based on incentives, economic for the most part, and standards and controls established through voluntary action and only occasionally through legislation.

Research can provide useful information in many ways. For instance in Puerto Rico medicine is a preferred field for families and their young sons and daughters. Some feel the motivation is basically economic; fewer feel it is service. Some feel it is initially service and turned into economic as a result of present day medical education. What is the truth? Can the motivation be altered or furthered? How?

To some extent also, and as it happens on the continent, there seem to be tendencies among physicians to specialize without too much consideration given to the needs of the people. Is this a matter of vocation? Of economic motivation? Can it best be dealt with by expanding or limiting opportunities for specialization? By what other means?

The question is often asked as to what extent education in the different health professions is geared towards the exigencies of the professional groups rather than to satisfy the needs of those that are going to be served? There is no doubt of some agreement between these two objectives. Studies that may lead to a better understanding of the subject may result in changes and improvements.

Certification of technicians and professionals in Puerto Rico has become quite general. It's purpose as usually expressed in the preambles in the pertinent laws and regulations is the assurance of quality of service. Academic preparation and approval of examinations previous to certification, once in the lifetime of the individual, are the basic requirements. To what extent does this procedure assure quality? To what extent does it limit the provision of care? To what extent does it limit the utilization of assistants and aides? To what extent does it result in an increase in the cost of services? This is an area that needs to be studied carefully to determine if there are needs for revisions.

Assistants and aides are being used in Puerto Rico in several areas and there are frequent expressions to the effect that more are needed. The justification of need presented is frequently subjective and stimulated too often by the availability of funds to combat unemployment, instead of being based on facts obtained through comprehensive studies and evaluations.

IV- Financing

It is estimated that in Puerto Rico $6,000,000 are being spent annually in health through both

the private and public sectors. How are these monies being invested in providing services the population really needs and uses? How much is wasted through unnecessary duplication, poor organization and administration and in other ways?

The amount spent is considerable. It is around 8% of the Gross National Product; quite similar to what is spent in the Continental U.S. The per capita expenditure for Health in the U.S. is estimated at over $450 per capita and in Puerto Rico at $200, the difference resulting from Puerto Rico's lower per capita income.

In addition to the lower income another point to consider is its maldistribution. When continental norms were utilized in the food stamp program 70% of the population qualified. On the basis of Puerto Rican norms 60% of the population is assumed to qualify for free health care services. With this high proportion of economically dependent population, the mechanisms for the provision of services has to be different from those utilized on the continent. The situation is aggravated by the fact that government has scarcely $100 per capita to provide health services to the economically needy, approximately 1,800,000 persons.

Some way must be found to reduce the differences between the expenditures in public and private health care services. No doubt governmental services should be up-graded. This advice has been given many times to Puerto Rico during the last 40 years. Actually governmental services have been up-graded but expenditures in the provision of private health care services continue to rise at the same or a faster pace and the inequities in quantity and quality continue. The private sector utilizes available resources completely out of proportion to the public sector in terms of the proportion of the population they serve.

If the diffferences in distribution are to be reduced, (they will never be eliminated), the entire area of financing and its effects on the availability of services in quantity and quality need to be studied. This should help to discover waste in both the private and public health services and hopefully point to needed measures and controls. Such studies should be designed so that they may be helpful in determining the best use of additional resources that may be made available in the future.

V- Collaboration between the private and public sectors

Two health care systems exist in Puerto Rico. The public sector serves the medically needy and has responsibility for the provision of public health services to all residents. The private sector provides medical and hospital services to those able to pay in one way or another. That both systems should collaborate in improving the health services available to the Puerto Rican people by pooling efforts directed toward the prevention of disease and premature deaths and in ameliorating unnecessary suffering is agreed on by practically every one. That they do not collaborate as much as possible is also generally accepted. Many opinions to explain the lack of collaboration are given but very few facts on the subject are available. Unless facts are obtained to document the true reasons for the lack of collaboration it will be difficult to improve the existing situation.

VI- The impact of federal legislation

The government of the United States, the Congress and the Executive Branch, have in mind the health of the residents in the federated states when they enact legislation, establish policy and guidelines etc. The Federal government has the money and with money the power to convince at first and to exercise authority afterwards in the area of health. This is especially felt in Puerto Rico where dollars are scarce and badly needed. This situation came to the foreground during the last elections when both major parties argued over which could get the most dollars from the Federal government. It is often forgotten that the acceptance of federal monies with it's implied authority to impose programs, policy and methodology may on occasions constitute obstacles to planning, programming and implementing services.

There is an urgent need to evaluate objectively the impact of such programs as Medicare and Medicaid, health planning, food stamps and others in Puerto Rico. Such evaluations could be very helpful to bring before the attention of Legislative and Executive authorities both in the United States and Puerto Rico what our actual needs are and suggestions as to better ways of facing them considering Puerto Rico's socio economic, and cultural characteristics.

VII- Evaluation of adopted or adapted schemes for the delivery of health care services

A number of schemes have been adopted or adapted or have originated in Puerto Rico with the aim of improving the health conditions of the people utilizing in the best possible way the resources available. The schemes usually are introduced in the public health care system, occasionally in the private, but are rarely, if ever, evaluated. They become parts of the systems or are discarded (not very often) mostly on the basis of opinion.

There are many examples of such schemes. A few suffice to illustrate: the health center idea; regionalization; implementation of free choice in the.

public sector; centralization of services for a number of hospitals at the Puerto Rico medical center; and separation of drug addiction and alcoholism services from mental health, medical, and hospital care services. What have been the advantages and disadvantages of each of these actions? There are many opinions but few facts to judge.

Another example refers to beds in the so called hospital units in our health centers. Most health centers in Puerto Rico have been provided with a small number of beds which are very poorly utilized. Are they really needed? As long as they exist can they be better utilized to satisfy the needs for which they were intended, or other needs?

VIII-Organization and administrative practices

With existing limitations on resources, adequate planning is very important. In Puerto Rico it is not really a matter of reducing cost but of utilizing available resources in the most economical way to get the most in service from the dollar spent. Planning has to be concurrent with evaluation and research to achieve this purpose. In Puerto Rico where 60% of the population utilizes one health care system (The Governmental), planning can and should be quite different from what it is on the continent.

An integrated commonwealth health services has been proposed, the situation has been studied, and consultations have been sought on several occasions. The real issue is a better utilization of the resources available to establish a system with reasonable equity. This can hardly be achieved without establishing controls to promote adequate utilization and prevent over-utilization. Such controls have to be based on research findings, otherwise they will be often challenged and/or ignored.

IX- Commonwealth health policy

Commonwealth health policy statements can be identified in the Commonwealth Constitution and Statutes, and in the directives, guidelines and other documents of the executive. Legislation, directives and guidelines issued by the Federal government have a very significant impact on Commonwealth policy. To a lesser extent legislative and executive actions of local governments establish policy. It is at times difficult to discover in some areas existing health policy. Health policy is often changed. Sometimes the changes are well justified, other times not. There is a necessity to clarify what existing policy is. The definition of policy with the design of procedures for adoption of changes could be a most interesting research issue. It should help to make better use of existing resources and of new resources that may be made available in the future.

Health Service Delivery: Research Issues in Puerto Rico *

by Angel M. Pacheco Maldonado**

Undoubtedly, Dr. Arbona (1977) has explicated a comprehensive agenda of problems regarding health services research in Puerto Rico. Furthermore, when viewed against the background of Mechanic's (1977) and Haggerty's (1977) appraisals of research issues and priorities, the questions posed by Dr. Arbona certainly constitute a life-span research program. Research in this area is all the more important in view of the trends toward reorganization of health care delivery services (Aponte *et al,* 1974; Mechanic *et al,* n.d.). If as Mechanic (1968) has shown, health care delivery systems fulfill a broader function of social support, than just simply care of disease then the need for research in this area is clearly evident. With his work Arbona certainly paves the way for closer scrutiny and systematic examination of health services in Puerto Rico from an interdisciplinary and interprofessional perspective.

Arbona divided the health services research problems in Puerto Rico into nine categories which, although admittedly incomplete, provide a framework to identify some of the major health service related problems of Puerto Rico.

Briefly, these categories are:

1. *Content of health services.* The health needs of the residents should be assessed, taking into consideration the demand for the utilization of health services, incorporating not only mortality and morbidity data but the perceptions of the recipients of the services regarding their own needs and the priorities in which these should be satisfied.

2. *Psycho-social pathology.* At present there is a change from morbidity due to communicable diseases to long-term illness and "psycho-social pathology." There is a need for research on the expansion of the concept of health services to include psycho-social morbidity.

3. *Human resources.* There are gross disparities in the availability of health services delivery personnel with regard to community needs.

4. *Financing.* The effects of financing health services in the private and public sector should be evaluated, including comparisons between the quantity and quality of the services.

6. *Collaboration between the private and public sectors.* In Puerto Rico, two health care systems coexist with relatively little interrelationship. Research is needed to document the nature of the relationship as well as to suggest possible ways to interrelate the systems.

6. *The impact of Federal legislation.* Although federal funds provide much needed resources, they may respond to problems and solutions alien to Puerto Rico and may become an obstacle for long range planning, programming and implementation of services. There is serious need to evaluate the impact and soundness of Federal regulations.

7. *Evaluation of the schemes for the delivery of health care services:* There is a need to evaluate the different schemes that have been used as a basis for the establishment of health services programs in Puerto Rico.

8. *Organizations and administrative practices.* The limited resources available in Puerto Rico make imperative long range planning which in turn facilitates not only the reduction of the cost but better utilization of resources.

9. *Commonwealth health policy.* There is a need for a comprehensive health policy with specific guidelines that promote the efficient use of existing and prospective resources.

My comments regarding these issues as well as other health services research issues in Puerto Rico will be divided along two major trends of thought. On the one hand, some aspects related to the context of health services in Puerto Rico will be discussed and, on the other, specific health services research issues will be considered.

Socio-historical context

First I will address myself to some characteristics of the socio-historical context within which health services are rendered in Puerto Rico.[1] These may of course coincide or partially overlap with social conditions elsewhere; nevertheless, they must certainly be viewed as a critical research element since as Gusfield (1975) and others have pointed out,

* Commentary to Dr. Guillermo Arbona's paper on *Research Issues in Puerto Rico*. The suggestions of Dr. Antonio Díaz Royo and Dr. Blanca Silvestrini are gratefully acknowledged.

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social problems often are constituted as such through psycho-social mythical thinking as well as through professional theoretical discourse. In a sense, what Gusfield and those concerned with the sociology of knowledge in the social sciences seem to say is that the very process of why one research problem is chosen for study and the particular way it is selected for research is mediated by a series of values and ideological stances (Buss, 1975; Braunstein *et al.*, 1975; Overton and Reese, 1973).([2]) Thus the nature of social research demands that one examine the reasons for selecting one research problem versus another. As a growing field of inquiry, health services research also requires that researchers address as objects of study the same processes through which they choose to study certain issues. Given that prevailing social values as well as the dominant world view do influence research issues and strategies, the challenge for researchers lies in examining critically the social context of research.

In Puerto Rico the need for the critical study of the social context of bio-psycho-social scientific research seems to become all the more important in view of the propensity to import verbatim research issues, methods and technologies which stem from alien socio-cultural concerns (Villamil, 1977).[3] Along these lines we cannot but agree with Mechanic (1977) as he points to the lessons which may be learned from studying the culturally relevant and idiosyncratic issues of health services in Puerto Rico.

In the field of health services research there is growing awareness of the fact that "health care delivery systems are shaped by the historical context within which they are embedded" (Mechanic, 1975, p.48). Some salient features worth noting of the Puerto Rican socio-historical context in regard to their influences on health services must be made explicit before entering into the discussion of specific research issues.

1. Although Puerto Rico has always had limited economic resources these appear to be shrinking at an accelerated pace. Together with the recent world wide awareness of the limits to growth (Meadows, 1972; Mesarovic and Pestel, 1974), Puerto Rico has also had to face stern economic realities of its own. After embarking on a path of economic growth while creating expectations for a higher degree of quality of life, Puerto Ricans are finding abruptly that growth has its limits, that not all growth is tantamount to development and that the quality of life is suffering severe setbacks.

2. It is not suprising to find out that Puerto Rico has lacked a cogent and comprehensive socio-economic development policy. The absence of such policy is evident from the study of the trend to multiply government agencies in an effort to face problems as they become subjects of public concern. As government service structures multiply, so does community dissatisfaction increase. Increasingly, communities seem to view public service delivery structures as inefficient and unaware of their service needs (Díaz, 1976).

3. Health services structures have also grown largely unaware of community needs and life styles. If on the one hand it is true that health and disease are major concerns of the Puerto Ricans (Steward *et al.*, 1956) on the other it is also true that the preservation of dignity (dignidad) as well as being respected (ser respetado y tratado como gente) are also overriding cultural concerns (Lauria, 1964; Díaz, 1975). Ironically health services have become increasingly technical while appearing as less human and less person-oriented. In this regard health services in Puerto Rico have not been spared from the same dehumanization process experienced in systems elsewhere (Berki and Hesto, 1972; Howard and Strauss, 1975; Mechanic, 1972b). On the other hand, as environmental industrial and other work related stresses impinge upon individuals, they find themselves increasingly at a loss for health care services. Who should they turn to for support? Health services providers seem to be losing sight of the very nature of their services, which in Mechanic's (1975) view, lies in the fact that "health care delivery systems have broad social functions not only in treating disease and disability, but also in alleviating tensions and distress and sustaining persons in the performance of social roles (p. 44)."

4. Hand in hand with the fact that Puerto Rican society has come to perceive an increase in the number of those persons designated as alcoholics, drug abusers, criminals, and mentally ill and find their lifestyles threatening and unacceptable, there has been a trend to rely on physicians and health services providers for the "rehabilitation" of these "sick" individuals. Although there are authors who feel that some, if not all, of these lifestyles are direct end products of underdevelopment (Toro-Calder, 1975), economic crises (Brenner, 1973, 1975), socio-cultural alienation (Váles, 1973), and the like, the fact is that society and the legal order have increasingly turned to labeling these often disparate lifestyles as "sickness" and entrusted the health services establishment with the "rehabilitation" task.

In spite of a growing tide of criticism directed at the health service system, particularly at physicians (Illich, 1975; Szasz, 1975; Scheff, 1966; Rosenhan, 1973; Kittie, 1971), the tendency persists to rely on notions such as "sickness" or "psycho-social" pathology or dysfunctions in order to place persons within the domain of medical responsibility. Mechanic (1975) has also identified this trend in other countries and states that ". . . with increasing secularization and modernization, medicine has filled the vacuum to deal with problems that were once under the authority of the family, religion, or

the legal system. The domain of science is increasingly encompassing a variety of deviant behaviors, social maladjustments, and difficulties in coping (p. 51)."

The critics of this trend, aside from pointing to the limitations of the traditional clinical-medical model when applied in the psycho-social domain, are quick to point out the fact that these custodial and "behavioral engineering functions do not stem from the scientific discourse (in the methodological sense) of the disciplines but rather from extra-scientific ideological or value ladden stance" (Flew, 1973; Gusfield, 1975; Szasx, 1975; Rose and Rose, 1973; Sarbin 1969; Fox-Piven and Cloward, 1971). Others have also pointed to the ideological standpoint that one or another group of professionals supports (Alford, 1975; Blishen, 1969). Certainly, the field of health services in Puerto Rico has not been spared from the interprofessional and interdisciplinary ethnocentrism which Campbell (1969) identified as an obstacle to interdisciplinary relationships. Consequently, it is not surprising to find that few, if any, question the ideological standpoints of the professions or disciplines, their roles in social control or their implicit or explicit reductionistic and fragmented views of the human being.

5. Health services in Puerto Rico have been traditionally oriented to curing or caring for disease rather than towards health care.[4] It is within this tradition that beliefs about health care needs have been shaped and that physicians have come to be the dominant professional group among the services providers. Although there is an awareness that folk healers, *espiritistas* and others do play a major role in providing health related services, there is very little information as to the nature and extent of these services (Díáz-Royo, 1977; Koss, 1972; Seda-Bonilla, 1973; Steward, *et al,* 1956).

Policy making and research

In Dr. Arbona's as well as in Dr. Fernández Pabón and Dr. Haggerty's papers, there is both an overt and a strong underlying concern with policy making and the degree to which health services research may and should influence the development and implementation of a comprehensive health care policy. In agreement with Dr. Arbona's and Dr. Harggerty's views regarding the need to influence decision-makers, we may conclude that health service researchers must work out effective communication links with policy makers and perhaps prepare their technical reports in ways that are system-compatible (be it government or private service systems), consequently allowing policy makers convenient access to research-derived information.

Along the same lines, researchers should develop stronger communication links with consumer groups so that reciprocal education processes may revolve around the course and after the completion of research. In this fashion the researcher enhances the knowledge base of the community which in turn may lead to enhance the action or power base of the consumers of health services. The time is ripe for a closer and more rewarding relationship between researcher and research participant since there is a growing awareness concerning the ethics of research and the need to discard the exploitive research designs in which the researchers drains his informants and leaves them in even worse conditions (Humes, 1972; Sjosbert, 1967; Stavenhagen, 1971). Thus, the challenge lies in developing a qualitatively different relationship between researcher and participant, in such a way as to guarantee the participant the opportunity to enhance his knowledge and increase his degree of freedom for responsible action. The need for this new relationship is all the more important in view of recognition of the fact that health services consumers need to participate actively in the determination of health needs and service delivery strategies.

The fact that in Puerto Rico research efforts are highly fragmented is an obstacle to greater influence on policy making (Arbona, 1977; Villamil, 1977). Ironically, policy or its absence, is largely responsible for duplication and fragmentation of research efforts, hence perpetuating a double bind. Both policy makers and researchers need to invent means for strengthening communication and sharing efforts. The Conference on Health Services Research has been a major and pioneering step in this direction. This sad state of affairs among researchers was recognized sometime ago by a group of researchers who, under the leadership of Dr. Cobas and Dr. Villamil, endeavored for over a year with the support of the National Science Foundation (NSF) to propose a blueprint for interagency research coordination. Although the final report contained specific propositions in terms of both long and short term solutions, action is as usual still pending (see Cobas, 1975). Perhaps one way to enhance communication among researchers and policy makers is to continue with conferences such as the one on Health Services Research, while in the interim period entrusting a joint committee of health services representatives with the task of monitoring the implementation of the conclusions of the Conference.

Another way to influence policy making may be through conducting simulation studies to examine the cost-benefit ratio of specific policies. In view of the changing nature of policies in the health care field this research strategy may yield valuable information for policy makers.

Information systems

There is serious need for reliable and valid health services related information both for research as well as for policy making purposes. The utility of the Master Sample Survey certainly must be underscored since it continues to be the single most important health related data base. There is also need to train policy makers and researchers in the use of the data already available. Along these lines, we wish to single out Dr. Haggerty's suggestion for more secondary analysis of existing data. For this purpose it will be ideal if perhaps the School of Public Health could act as a depository of data which would be subsequently submitted to further analyses.[5]

The experience of the NSF Seminar on interagency research (Cobas, 1975) showed that in Puerto Rico there are often more research reports than is usually acknowledged.[6] However, much of this research is not easily accessible although it generally does provide as "hard" a data base as is necessary, given the present state of affairs. On the other hand, researchers in Puerto Rico should not be overly concerned with gathering too much "hard" data since, to begin with, data cannot substitute for conceptual analysis, which is often what we truly need.[7] There is a serious need to make public government sponsored research, particularly health services related research. The need for some degree of confidentiality should not be an excuse to relegate to anonymity valuable research. When a major study, for example, such as the one which used the food stamp program data, is done and kept in the drawers, the best interest of society is not being served. If this situation persists, perhaps researchers or private groups may have to use the Freedom of Information Act to learn about research findings in Puerto Rico.[8]

Need assessment

Dr. Arbona has pointed to the need for research on the users' perceptions of their health care needs, the providers views of the users' needs, as well as the users' views of how the system fails or meets (totally or partially) their needs. This has certainly been a neglected area of research in Puerto Rico.[9] Often government service programs have been instituted without an adequate knowledge of the potential users' needs as well as of their preferred modes for satisfying the needs. Ideally, these need assessment studies should include an ethnographic component in order to obtain data on the broader bio-psycho-cultural and physical aspects of the quality of life in the various settings in Puerto Rico.[10] Recent research in ethnomedicine (Fábrega, 1975; Fábrega and Manning, 1972; n.d.) and in medical anthropology (Fábrega, 1977; Foster, 1976, Young, 1976) suggest that health-related needs must be viewed within the broader cultural context that in turn shape values and expectations. Mechanic (1975) also stressed the need to understand the broader socio-cultural context in order to gain knowledge on the issues realted to the social functions of health care systems:

> Illness is not only an event that happens to people, but also an important explanation that can be used to sustain one's social identity and social functioning . . . The processes through which persons come to see themselves as having a problem, the way they come to define the problem as relevant for seeking particular types of assistance, and how they present it is a fertile area for understanding the large significance of medical care and social services to activities more generally (p.53).

If the health need assessment studies are designed and conducted from an interdisciplinary perspective they will yield valuable data to guide both policy making as well as future research. These studies will yield data on the "actors" or potential users' views of health, illness, health care needs, life stresses and tensions, the quality of life in general, as well as data on their indigenous strategies for self help, coping skills, and on individual and collective support systems. This information will provide a solid groundwork for the development of a health care policy that is truly congruent with the needs of the citizens.

Program evaluation studies

Both Arbona (1977) and Haggerty (1977) agree on the need for program evaluation studies. Both view evaluation research as a major source of data for both program development and policy making.

Undoubtedly, interest in program evaluation research has flourished hand in hand with the proliferation of government service programs and with legislative concern for accountability. Within this context, program evaluation research is often viewed as the panacea that will provide the definitive answer to policy issues. Unfortunately this is far from being the case since often program evaluations are already constrained by policy regulations (Cohen, 1970) and are often called to engage in terminal evaluations with little room to guarantee the validity of the study. Nevertheless, program evaluation must be considered as a valuable tool for health care services research, above all if it is of the formative type. As the field of evaluation research advances, the refinement of designs and technologies will certainly facilitate the evaluation research of health services delivery systems.[11] Spe-

cifically, evaluation studies are needed to assess the impact of the various types of prevention programs particularly in the field of mental health.

The possibilities for health services program evaluation research will be enhanced significantly if, prior to major program development, an evaluation design is added as a program component. Of course, this is an ideal condition; however, agencies such as the Law Enforcement Assistance Administration are encouraging grantees to utilize the randomization principle for assigning clients to treatments. Again the need for a close relationship between policy makers and researchers comes into focus; without it evaluation research will yield limited results. It is precisely through this close researcher-policy maker relationship, that, as suggested by Campbell (1969), social reforms will come under scientific scrutiny as experiments.

Education of health services personnel

Increasingly, health related professionals are trained in the application of techniques and farther away from a humanistic perspective. If as Arbona (1977) and others have proposed, there is a serious need to account for the person rather than for service units (such as number of beds, numbers of visits and the like), the training of professionals must rediscover a humanistic dimension (Chapman and Chapman, 1975). Professionals, particularly physicians, must learn to understand the cultural context with its intricate web of rules and themes, so that they may truly communicate with those in need of care. The training programs must be evaluated not only in terms of cost-benefit ratios but in terms of how well do they train the students to take over positions in health care rather than in a simply disease-cure, oriented system.

Psycho-social pathology

If on the one hand we have to accept the fact that drug abuse, alcoholism and criminal violence are apparently increasing in Puerto Rico, we have to recognize also the fact that the traditional clinical-medical-pathological model offers little, if any, significant help for coping with these modes of behavior. Frequently, health services professionals (particularly in the field of mental health) reify their diagnostic categories and treat people as if they would truly possess the quality that pertains more to the metaphor used to describe their style of behavior (Sarbin, 1969). Consequently, for example, the person is seen as sick from an addiction and frequently stigmatized rather than helped. The debate on these issues continues intensely, particularly in regards to the utility of diagnostic illness labels to designate a range of socially unacceptable lifestyles. It is the duty of the researcher in the field to examine carefully both the service delivery systems as well as the modes of defining the problems or so called "pathology" of the users.

Fragmented services, Federal programs and legislation

Arbona (1977) has also pointed to the fact that so often health services are fragmented not only in that they are offered in separate settings, thus escalating costs and underutilizing already scarce human resources, but that they are offered without a comprehensive view of the needs of users. An evident example is found in the rendering of drug abuse, alcoholism and mental health services. Here one finds the problem of inadequate policy in Puerto Rico, and an erratic and equally inconsistent policy at the Federal level. The inconsistencies of Puerto Rican policies are still unresolved, while already the Federal government is contemplating a major reorganization of ADAMHA. To complicate things further, legal changes and jurisprudence both from Puerto Rico and the United States regularly influence and modify the nature of health services in Puerto Rico. This is only one example in which changes in Federal regulations impact upon Puerto Rican health services. Federal provisions for the staffing of new programs frequently add unnecessary pressure to already scarce human resources. If a program is to qualify for federal funds, it must provide for a particular type of specialized service often only available by tapping an already over extended group of professionals. An additional problem may stem from the fact that to begin with in Puerto Rico's context the services of the specialist could be rendered from another source. Certainly federal staffing provisions often exacerbate what Campbell (1969) called the ethnocentrism of the disciplines, since they often perpetuate the prevailing patterns of dominance among the professionals.

In concluding these remarks an additional issue must be brought to light. In a field in which technological advances abound, there is a need to reflect upon ethical matters (Fox, 1976). Ethical problems are not solely related to technological changes but are also evident in the consequences of service systems which perpetuate social inequalities (Herman, 1972).

Health service researchers must bear in mind the ethical dimensions both of the services as well as of their research designs and strategies so that knowledge seeking actions may be optimally compatible with standards of justice.

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Footnotes

1. For further details see Fernandez Pabon's (1977) paper as well as the pioneer work by Mountin, Pennell, and Flook (1973) and by Trussell and Arbona (1962.

2. See, Pacheco (1976) for the implications of this notion for research in the field of alcohol and drug abuse in Puerto Rico.

3. See Mahler (1976) and Gish (1976) for a discussion of the difficulties associated with copying and adopting uncritically health care services systems from industrialized countries.

4. Kristein, Arnold and Synder (1977) and Berki and Heston (1972), among others, have discussed the disease-care orientation as one of the features of health services in the United States.

5. The Institute for Behavior Research at Texas Christian University has a similar project with data from drug abuse epidemiological studies.

6. Some of the most recent ones are: *The etiology of violence* (Technical Services, 1976); *Informe de la Comission de Salud Mental* (1976); *Evaluacion de los programas de tratamiento* (Departamento de Servicios Contra la Adiccion, (1976); Familias en pobreza extrema (Dept. de Servicios Sociales (1976); Perfil de caracteristicas sociales . . . de la poblacion penal (Sanchez-Longo, 1975).

7. The notion of hard and soft data is used to denote commonly held notions regarding the respectability of research findings. This polarity is increasingly discredited as positivistic views of science give way to broader interactionist epistemiological views.

8. It may not be such a far fetched idea to include in the proposed Office of the Ombudsman an administrative unit responsible for monitoring government statistics as well as research findings which may yield data government efficiency.

9. Recently the Health Department conducted a study along these lines in the Cayey area; however, the results have not been published.

10. These assessments studies will benefit from the recent developments in the fields of ethnomedicine (Fabrega, 1975), ethnomethodology (Garfinkel, 1967), medical sociology and anthropology (Young, 1976), psychological anthropology (Hsu, 1972; Cole *et al,* 1971) and the like.

11. See Glass (1976) and Guttentag and Struening (1975) for recent developments in the field.

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Summary of Open Discussion Following the Presentations of Dr. Haggerty, Dr. Arbona and Dr. Pacheco

The general area of consensus among participants in the session was on the need to coordinate research so that it will not be fragmented. Fragmentation was associated with the allocation of Federal funds. The coordination of research should also imply access to that information. The system of information should be uniform.

The participants, in several instances, stressed the importance of a closer association between researchers and policy makers, policy makers and users of services, and policy makers and health administrators.

In the area of evaluation research the discussants agreed that this type of research is badly needed, especially with the new federal guidelines. A division in positions came about among participants with regard to the effect of evaluation in policy making. Should research facts influence policy or does policy come first and research comes once issues have been decided politically? The need to involve people in projects (or delivery of services) in the evaluation scheme was also presented as an important issue.

Several participants agreed on the need to establish local standards of health to evaluate the efficacy of health systems. The need to evaluate cost-effectiveness of tertiary care was also mentioned.

The researcher's role was discussed. Should they or should they not recommend and decide on changes and implement them, or should they be only providers of information? It was proposed that the researchers build an inventory of research issues and alternatives and look for ways of disseminating information. This information could be from secondary or primary sources, for immediate and future use respectively.

The need to come closer to politicians to help them make decisions was once more stressed at the end of this session.

A Strategy for Health Services Research in Puerto Rico

by José J. Villamil*

The purpose of this paper is to provide some guidelines for a research strategy in the area of health services. Much has already been said at this Conference about Puerto Rico's health system, the health conditions of its population, and related researchable issues. Documents circulated to Conference participants provide additional information on these matters. It would be redundant to once again describe the health system of Puerto Rico.

Why a health services research strategy?

1. A primary reason for attempting to formulate a research strategy is that the health system and the context in which it functions have become so complex that it is difficult, if not impossible, to understand and deal with it intuitively. *Ad hoc* measures are no longer sufficient. It becomes necessary to understand the system we are dealing with in all its complex web of interrelationships and this can only be done through a long term, comprehensive research program.

2. Puerto Rico has telescoped its growth from a traditional agricultural economy to a complex, industrial economy in a very short period of time. This very rapid process of growth has been accompanied by structural transformations in some areas of the economy and of society in general. There have also been significant disruptions, as was the case with the massive population movements that accompanied economic growth in the fifties. The technology we have adopted, mainly from the United States, has in many instances been disruptive, particularly in the area of industrial activity. Too often, we have proceeded as if we were not a small, densely populated island, but rather a large, continental nation (1).

The future will continue to present us with rapidly changing conditions with which we have to learn to cope. Puerto Rico is integrated into United States society, which will continue to change its technology, its social and economic policies, its relationship to the rest of the world. All of these things will affect us directly and significantly. It is necessary for a social system such as Puerto Rico to have as close an approximation as possible to what these changes will be and how they will affect us. Undoubtedly, the health system will be affected, as it already has been.

3. It has become abundantly clear that the present organization of the health system in the United States will not solve the health needs of the population and that, the AMA willing, there will be some changes made in the near future. How significant they are remains to be seen. But undoubtedly, as in the recent past, Puerto Rico will be confronted with the challenge of new legislation on health services in the United States. What effects will it have on us? What alternatives are open to us? All of these are questions which can only be answered after a thorough evaluation and much basic research has been done.

4. Another important reason for developing a health services research strategy for Puerto Rico is the need to develop an explicit, detailed, long range policy for health services in Puerto Rico. In order to do this, it is necessary to develop a powerful research capability that will produce the intelligence necessary to answer the important questions which will arise in this effort. In the absence of such a policy, we can only look forward to more drift and greater dependence. In fact, many of the negative impacts of U.S. intervention have come about precisely because in Puerto Rico there has been little sense of direction in the health sector and no explicit policy posture, other than the pursuit of U.S. funds (2).

5. Puerto Rico has had a long history of innovation in the field of social planning, including the health field. We need to evaluate our experience, to guage our failures and successes, to provide the basis for continuing innovation to meet our needs. This can only be done, again, if we maintain a continuous research effort through which we can ascertain both what was successful and what was not. Obviously, in the context of rapid change, past experience is not always relevant. It is important,

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however, that we maintain the capability to continuously monitor and evaluate our programs and activities. Only thus will we be able to make the necessary adjutments and reallocations required by changing needs and demands.

Constraints on a research strategy

1. It is necessary to consider the constraints that exist in trying to formulate and institutionalize a strategy for health services research. Perhaps the main constraint is that there is no over-all policy in the health field which would provide criteria and guidelines for the formulation of a research strategy in Puerto Rico. The health sector is fragmented not only between the private and public sectors, but within each of them. In the public sector, there are a great number of agencies, commissions and councils at work in the health field, often without any coordination. In fact, one could state that there is no health system as such, or even that there are two systems. There are a multitude of actors, each operating within parameters set by their own organizational or personal objectives with little regard for the rest (3). There are, of course, formal and explicit objectives for the public health system, as there are in private medicine, but in fact these are frequently subordinated to the implicit or latent objectives of the various organizations and professional groups.

2. A second constraint to developing a research strategy for Puerto Rico is the fact that over the past twenty years, and particularly in the last ten years, Puerto Rico has become an extremely dependent society. It has increasingly depended on U.S. funding for many of its programs and, what is worse, it has increasingly lost its capacity to develop appropriate approaches and methods for dealing with society's problems. In effect, in order to obtain these funds, we have delegated much of our planning and policy-making capability and authority to Washington. Our capacity to innovate has suffered. It is apparent that if this were to continue, a research policy would make sense only to the extent that it is compatible with U.S. government objectives and priorities. One can only hope that this will not be the case. Yet, it must be recognized that many of the laws enacted in Puerto Rico in recent years have had the objective of bringing our policies into line with U.S. legislation. New programs and agencies have been established solely because they will permit access to U.S. funds. Of course, and this should be obvious, U.S. programs have not always had a negative impact. However, it is important to recognize that in the context of Puerto Rico, they have frequently stimulated the fragmentation of the health system. Health policy in Puerto Rico has become primarily, and almost exclusively, adaptive (4). We must take into account the problems which arise when two systems with different levels of organization and complexity are integrated. This invariably leads to the disintegration of the less complex system and raises the question of whether such integration is desirable.

3. Another constraint on developing a research strategy in Puerto Rico has to do with the fact that we are a capitalist society, and that it is within that context that we are discussing health problems. Although we have talked about "pluralistic society," "democratic traditions," "macro social aspects," "value structures" and "the public," these are categories which really do not help us in understanding the fundamental causal relationships in how the system works. There is a logic to the operation of this system which must be understood because it has direct bearing on the health problems of the people, and how they are dealt with. To paraphrase Disraeli, there are two Puerto Rico's, one, rich and one poor, and this is reflected in the organization of the health sector. The profit motive which lies at the heart of capitalism may have been instrumental in providing the western world with an industrial revolution and great economic growth, but it is also responsible for many of our social ills, including many directly affecting the health of the population. Pollution by industry is one example, occupational hazards provide another. Examples are to be found in practically any area of social activity, including the practice of medicine, the production of pharmaceuticals and the operation of hospitals (5). I do not mention this merely to repeat what is well known, but to remind us that any recommendation made is constrained by this reality. Health problems and policies cannot be divorced neither from the over-all social and economic development policies of a country nor from its institutional context.

4. There is in Puerto Rico no tradition of dedication to research in the health services field. There are examples, some very distinguished, of research done in the island, particularly in the forties and fifites. One need only cite the work done on regionalization. But, in general, these are exceptions. The government has had little interest in developing a policy on scientific research despite abundant evidence that it could rationalize the use of resources through research, promote the training of research personnel and provide inputs to the policy-making process (6). In the health field there is at present no research policy. This is a reflection, in part, of the absence of an integrated policy on health and the fragmentation which exists in the health sector. One is impressed by the fact that in the various documents circulated to Conference participants, there is little or no mention of research needs. This is true of the Universal Health Insurance Commission Report as well as the various plans and documents of the Depart-

ment of Health. The attitude seems to be that research is either a luxury or that it is simply not necessary.

5. There are operational and conceptual problems related to research which could impose constraints on developing such a policy in Puerto Rico. The definition of the health system which is to be the object of research, while in itself posing a challenge to researchers also poses serious problems. This is particularly so in view of the fragmentation of the health system and the bureaucratic interests which have developed in the various sub-areas of health. The definition of health, health needs and the health system poses serious problems at a conceptual level which could also affect the probability of success in elaborating a research strategy (7).

The components of a health services research strategy

The purpose of research is to provide new information, either by generating raw data, as in surveys, or by providing new analyses. On looking at the health sector in Puerto Rico and, one might add, the social services in general, one is struck by the absence of appropriate information. The emphasis is on appropriate, for there is a great deal of statistical information produced throughout the government, not all of which serves a useful purpose. Any recommendations made with respect to formulating strategies for health services research must take into account the urgent need to strengthen the data base and the analyses made. The Department of Health developed some time ago a most useful research instrument for the formulation of policy in the health field, the Master Sample Survey. It has had a sketchy life at best and in recent years has been unutilized for the most part. The Master Sample Survey must be one of the basic components of a health services research system although, in order for it to be useful, changes will have to be instituted in how it operates and in the organizational structure within which it is established. In the context of scarce resources, research must be selective, and strategic choices must be made. One prescription for a strategy on research in health services is that there must be a clear selection of the priority areas to be dealt with. In that sense, much of what Dr. Arbona and Dr. Mechanic have presented is useful for delineating priority areas. It is obvious that there are areas in which we have a comparative advantage, to use the economists' term, and areas in which we do not. In the past we have exploited some of these advantages and significant advances have been made. One result of our absorption into the U.S. system has been the adoption of U.S. standards, criteria and priorities and this has made impossible the recognition of those areas in which Puerto Rico has either special needs or advantages. One becomes innovative not in terms of solving problems but by doing work which is judged on the basis of criteria set by the U.S. scientific establishment, or worse, by the U.S. Government bureaucracy. To a significant extent, this is a problem which is self imposed.

It is obvious from the areas that have been suggested by Dr. Arbona in his paper, that research in the health services field must be interdisciplinary. There are serious problems that have to do with the interface between health and social and economic development which go beyond disciplinary lines. It is unfortunate that real life does not present itself in neat disciplinary classifications, but that is indeed the case. Social scientists have not dealt adequately with the formation of interdisciplinary research efforts (8), nor have we recognized the limits of our disciplines (9). But there is no alternative to interdisciplinary research for dealing with the implications of the maldistribution of health resources or the causes of such unequal distribution such as environmental health and other problems in the health field. There is an important type of research which is needed in Puerto Rico, and to which allusion has been made: the need to evaluate past experience, and present programs. It is important and among the most difficult types of research to be done. The information does not always exist, there are vested interests, and the inertia of bureaucracy, works against the researcher. Yet, evaluative research is not an end in itself, but is closely related to the policy-making process (10) and provides inputs to it. Any research policy for Puerto Rico in health services, must include the continuous monitoring and evaluation of government and non-government programs. It is hoped that the Master Sample Survey and the new information system being established at the Health Department will facilitate this task.

One important consideration is the organization chosen for health services research in Puerto Rico. When making this choice we are confronted with a number of models which provide some indication of what an appropriate organizational structure could be. It is clear to us that research is an activity which the Deparment of Health will not be able to carry out with any degree of success. This is due primarily to its commitment to operational activities which absorb the energies of its staff, and which tend to absorb most of its resources. The University of Puerto Rico would also seem to be ruled out. It has become too large and set in its ways. The Medical Sciences Campus has great resources in the research field. However, the type of research necessary is one which, although maintaining the high standards of university work, will also serve the health needs of the population, par-

ticularly those served by the public sector. This close association between research and public programs is something which may be difficult to achieve by a university based research organization.

One organizationl scheme which has much to commend it is that developed by the British. In Great Britain, there has been a Medical Research Council since 1920 (11), which acts as the main research organization in health. Its activities can be summarized as follows:

1. Does research directly in its own research establishments.
2. Provides grants to research workers in universities and hospitals.
3. Awards fellowships for training in medical research.

The funding for the Council's work comes almost exclusively from the Government, and its members are chosen by the Secretary of State for Education, in consultation with the various scientific organizations. Although the Council's work concentrates on medical research defined in a somewhat narrow manner, its organization provides an interesting model. An alternative model has been proposed in the United States, based on the semi-autonomous research laboratories in universities such as MIT, with its Lincoln Laboratories (12). And, of course, in the U.S. there are the National Center of Health Services Research and the National Institutes of Health.

In Puerto Rico it is important to disassociate research from existing organizations. To attempt to do otherwise is to court disaster, for the inertia of entrenched bureaucracies cannot be underestimated. It is because of this that any research effort in the field of health must be organized independently of existing organizations, and yet be able to work with them and respond to the needs of the health sector.

Any recommendations made here are merely rough approximations. Yet one can state certain requirements with some degree of assurance. An organization entrusted with organizing and coordinating health research, must be linked to the University and to the agencies operating in the health field. The Health Council created last year could have simplified the task of coordination, but that structure does not appear to be either very effective in its present form nor do the chances of long life appear to be very high. Thus, the two main bodies involved would necessarily have to be the Department of Health and the Medical Sciences Campus.

What one visualizes for Puerto Rico eventually is an organization similar in some ways to the British Medical Research Council which would include among its functions:

1. Definition of a research policy in the health services field;
2. Promotion of research by coordinating the work of the various research organizations, and by creating interdisciplinary teams;
3. Creating an awareness of the importance of research;
4. Setting priorities and allocating funds for research;
5. Managing and operating some basic research activities, such as the Master Sample Survey;
6. Diffusion of research results.

It could be argued that research is an activity which is individual and which could be hampered by creating an organization to oversee it. The defenders of the "Republic of Science" (13) are many and powerful, and partially correct. The problem is that in social systems in which resources are scarce, choices must be made on the basis of society's priorities and needs. The "Republic of Science" must respond to these needs.

It would be highly unrealistic to talk about research and not mention one of the biggest obstacles, funding. Obviously Puerto Rico will not be able to count on great quantities of money for pursuing research activities in the coming years. This raises the possibility of increasing dependence on U.S. funds, unless some shifts can be made in research allocations. If U.S. funding for research can be obtained without affecting our research priorities, well and good. But I feel it is necessary to generate our own research funding, perhaps by a formula which allocates a fixed percentage of the Health budget to research. This does not necessarily mean an entirely new allocation. One activity which the organization should be in charge of is the Master Sample Survey, which already receives a budget allocation. In addition, there are a number of activities in the field of research which are already taking place which could be coordinated, hopefully with greater effectiveness, by such a body.

We visualize a Health Research Council, composed of a number of representatives of the Department of Health, of the Medical Sciences Campus and of other agencies which directly or indirectly are related to the health of Puerto Ricans. The Council should function as a quasi autonomous public entity, much as public corporations do. Although it could carry out some specific research related activities, such as the Master Sample Survey, and even manage some research projects directly, its most important functions would be related to overall policymaking, coordination and integration of research efforts. The task of forming interdisciplinary research teams is a very important one, particularly in the context of Puerto Rico, where interagency cooperation in the government and the University leaves much to be desired.

One anticipates that the Council will have a small, permanent, scientific staff of researchers

and will depend on the research resources of the various organizations mentioned, particularly the University. Obviously, in order to be able to carry out its tasks, particularly as relates to obtaining the cooperation of the various agencies, the Council must have the support of the various organizations with which it will have to interact, and that of the Government.

Of course such an organization cannot be established overnight. Rather, one must expect a long gestation period given the present institutional structures and the economic situation in which the country finds itself. However, if progress is to be made in advancing research in the field of health services, and integrating it with the policy-making process, few alternatives exist.

Final comments

As mentioned, the success of a research policy in the area of health and health services depends in no small measure on the existence of a precise and well delineated health policy. We mentioned a number of constraints which exist and will undoubtedly affect the impact which health services research will have on the provision of health services. I am pessimistic in this respect, for without a thorough reorganization of the health care system and the health professions, not much can be accomplished. To what extent is this possible in the social, economic and political system of Puerto Rico? The answer depends on the determination of the Government.

Another problem with which we must deal has to do with our increasing dependence on outside financing, resources and technology. One manifestation of this is the role which outside consultants have had in research and policy-making in Puerto Rico. It is time that we begin to depend on our own resources and that we begin to develop the personnel required for carrying out needed research. A society can exist only if it has the capability of solving its own problems. Puerto Rico has been a laboratory far too long; much of the research done has had little to do with the welfare of our people and much too much with the needs of particular researchers. Unless we decide that, henceforth, research in the health field will respond to the needs of the Puerto Rican population, there is little hope for having a successful research program.

Notes

1. This is a point made quite effectively in the *Report of the Governor's Committee on Puerto Rico and the Sea,* 1972. On the problems of small size, see also, E. Gutierrez and J. Villamil, "La Toma de Desiciones Bajo Condiciones de Escasez Extreme de Recursos", *Plerus,* Vol. VII, Núms. 1 y 2, junio–diciembre, 1973.

2. This is true for the public sector in general in the last decade or so. In fact, as mentioned in Dr. Arbona's paper, in the past election campaign "both major parties argued over which could get the most dollars from the Federal government."

3. On the question of organizational objectives in the health sector, see W. Richard Scott, "Some Implications of Organization Theory for Research on Health Services," in I.K. Zola and J.B. McKinlay (eds.), *Organizational Issues in the Delivery of Health Services,* Milbank Memorial Fund, New York, 1974.

4. In the United States where the state level of government is relatively weak, much of the recent Federal legislation had the intention of achieving greater coordination and integration in the planning and provision of health services. In Puerto Rico, where there has been a long tradition of central government intervention both in the provision and planning of health services, this same legislation led to the fragmentation of the system. This is certainly the case with P. L. 93–641.

5. There is much that has been written on the workings of the medical profession and the pharmaceutical industry. See, for example, Vicente Navarro, *Medicine Under Capitalism,* Croom-Helm, London, 1975, and Michael Cooper, *Rationing Health Care,* Croom-Helm, London, 1975, also Brian Abel-Smith, *Value for Money in Health Services,* Heinemann, London, 1976.

6. An interesting project aimed at developing such a policy was carried out in 1974–1975, with no positive results. This was due primarily to lack of interest on the Government's part and the opposition of various agencies who feared that they would lose autonomy. See, *Science and Technology: Research Priorities Project,* Institute of Social Technology, San Juan, 1975.

7. On this question, see the articles by Danielle Turns on "Measurement of Health Status" and of Bernard Bloom on "The Use of Social Indicators in the Estimation of Health Needs." Both appeared in *Need Assessment in Health and Human Services,* Proceedings of the Louisville National Conference, ed. by Roger Bell, Martin Sundel, Joseph Aponte and Stanley Murrel, 1976.

8. An interesting attempt to deal with the problems of interdisciplinary work is that of the Center for Educational Research and Innovation of the Organization for Economic Cooperation and Development (OECD). See its publication, *Interdisciplinarity; Problems of Teaching and Research* in Universities, OECD, Paris, 1972.

9. Not all disciplines are equally guilty of this. Victor Fuch in his recent book, *Who Shall Live?* Basic Books, New York, 1974, recognizes the limits of Economics in dealing with health problems and policies.

10. On the integration of evaluative and policy research, see E.H. Ricci and J.E. Nesbitt, "Policy-Evaluative Research: Some Methodological and Political Issues", in S.R. Ingman and A.E. Thomas (eds.) *Topias and Utopias in Health,* Mouton Publishers, The Hague, 1975.

11. A description of the Medical Research Council appears in *Health Services in Britain,* Central Office of Information, Reference Pamphlet 20, Her Majesty's Stationery Office, London, 1974. For a more detailed description of health related research in Great Britain, see F.D. Beddard et. al., *Positions, Movements and Directions in Health Services Research,* Oxford University Press, Oxford, 1974.

12. This suggestion was made by Alexander Leaf in his article "Government, Medical Research, and Education", *Science,* 159 (February 9, 1968), 604–607. Obviously, this suggestion referred to the actual research work, and not to the creation of a coordinating and policy-making body for health research at the National level.

13. This phrase is taken from Michael Polanyi's article, "The Republic of Science: Its Political and Economic Theory", *Minerva,* I, 1 (Autumn, 1962).

A Strategy for Health Services Research in Puerto Rico*

by Luis A. Miranda**

I read Dr. Villamil's paper during a budgetary crisis which may have influenced my reaction to it. Crises tend to make me a little bit anxious, so you may expect my comments to be colored by anxiety.

In relation to the basic process presented in Villamil's paper, I agree with the following:

1. The measures being taken are not sufficient to deal with the system;
2. Very often we act as if we were a large powerful nation which seems to me is a reflection of our complex colonialism;
3. Technological changes in Puerto Rico and outside Puerto Rico will continue to affect us;
4. Frequently, the search for happiness in the way of federal assistance has had deleterious effect on our system.

We have a lot of experience and achievements in social and health planning. It was mentioned that there is not an overall policy for research. We have read that a lot of research has been done. Yes, I have seen a lot of that, but I am aware it has had very little impact upon or recognition from those who should give recognition or at least take into consideration the results of such research. It is also true that we are a dependent society because, unfortunately, the researchers are also depending on Federal funds. This is one of the problems to which I referred at the beginning by saying that the budget or budgetary restrictions affect research and planning. In general, Dr. Villamil has pointed out some of the realities of our present situation which definitely should be considered in drafting a health services research strategy. Unfortunately, as he also mentioned, it seems that those constraints also apply to the objective of developing a strategy. That is, we are also limited in terms of how to make a strategy work.

The creation of a Health Research Council may not be either as feasible as it would appear or have the impact that is desired. Generally, we would probably have to write a proposal to the Federal government to set it up. Then we would meet with the constraints that the Federal government would impose. Secondly, it has a smell of bureaucracy, with your pardon Dr. Villamil, and bureaucracy tends to become an end in itself. I fear that some such entity may be needed in the long run to bring some measure of order and coordination to research activities. But I tend to favor less structured concepts over the more rigid models.

The Health Department and the Medical Sciences Campus do not necessarily share the same concerns or even philosophical outlook on this matter. Let's assume that research is more an academic function, therefore the campus is preponderant. As Dr. Arbona mentioned, in his time he saw to it that research products had an impact on service and we are witnesses to that. If this is once more to be the case, that is, that the Health Department will be guided in large measure by the results of research, some very serious high level agreements must be reached before we begin to formalize structures for research. Otherwise we will only introduce a third-party into this situation which may become as jealous of its own survival as the Health Department and the Campus. Then a tri-partite negotiation situation will have to be resolved instead of just a bi-party negotiation. (By the way, in this discussion I am forgetting about the Department of Drug Addiction which would make it a quatri-partied situation.)

I believe the Campus will have to take the initiative and carry the main responsibility but in consonace with what has been the constant theme in this meeting, it will have to give ample participation to the Health Department and other interested entities at least in regards to the priority setting process. I can see other areas in which the users of the products of research will have to be involved. Methodology is probably one of our main problems in the Health Department. We lack enough personnel with the necessary expertise to develop truly scientific measures of what we want to measure. This has hampered the "Muestra Básica" which has been mentioned here. For exam-

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* Commentary to Dr. José J. Villamil's Paper.

** Assistant Secretary for Planning, Evaluation and Development, Department of Health, Commonwealth Puerto Rico.

ple, in the past seven years that I have been involved with it in one way or another, I believe we have produced only one report of the survey in spite of the fact that every year the data was collected. That shows just how poor we are dealing with this instrument.

In view of what I have thus far stated, I would like to suggest a few elements that might be necessary before we move into a more sophisticated entity such as a Health Research Council. I believe that an information pool has to be created. It was mentioned that there are many studies lying dormant in many desks both at the campus and, I know, at the Health Department. Very few people ever gain an awareness of these studies, an awareness that might have changed their minds about some decisions that were taken. This information pool would not be one where crude data are stored but actually a repository of results of previous research. This concept should be very clear. There should also be a group of people representing the various entities concerned with the problem. I hesitate to give it the name "committee" but that's probably what I mean. This group would not have an office. The members would be the same ones that Dr. Villamil has mentioned plus the ones that he did not mention, the Department of Drug Addiction, the Social Services Department, the State Insurance Fund and several other entities within the Commonwealth that impact on the health system one way or another. As a matter of fact, he did mention the A.M.A. in his paper but not in the context that it might be a participant. I think they should be a participant either as the A.M.A. itself or through the P.S.R.O which is a child, so to speak, of the A.M.A. So this is what I have to say in terms of what has been proposed. Dr. Villamil, I think that we are still not mature enough to go as far as you propose in creating structures because I am forever fearful of more structures.

A Strategy for Health Services Research in Puerto Rico*

by Ada Pérez de Castillo**

I represent the Health Systems Agency in Puerto Rico. Desarrollo de Recursos de Salud, Inc. is a private non-profit corporation, organized under the state Laws of Commonwealth of Puerto Rico on May 29, 1975, and was designated as the Health Systems Agency in Puerto Rico on April 23, 1976.

The Health Systems Agency of Puerto Rico constitutes a basic and major element in the implementation of the National Health Planning and Resources Development Act of 1974. (P. L. 93–641) approved by the Congress of the United States in 1974 and signed by President Gerald Ford on January 4, 1975.

Public Law 93–641 has as it's major purpose the development of a national policy for health planning aimed to correct deficiencies of the actual system which are obstructing the maximum enjoyment of health by the population, to enlarge the planning activity with regard to health services, manpower and facilities, and to authorize the needed financial assistance for the development of resources to promote this policy.

The Health Systems Agency has the responsibility of preparing a Health System Plan for five years and subsequent annual plans which will detail the needs of the residents of Puerto Rico.

In this manner the implementation of all plans through other entities is one of the specific functions of the Health Systems Agency; to increase the accessibility, the acceptability, continuity, quality, equitability of medical services offered, to constrain the rises in the costs of services and to prevent unnecessary duplication of health resources.

The administration of the agency is headed by a Governing Body of thirty members who represent all sectors including social, geographic, economic, professional and non-professional sectors in Puerto Rico.

At the same time our Agency will receive advice at all levels from organizations designated as sub-area councils which represent all sectors of the Island. These councils will provide the perspective of the community and the access to the health problems in each corner of the Island.

Let's go now to certain comments concerning the paper of Dr. Villamil having as a frame-work some information about the Agency which I represent.

Comments on the document

Although created by means of the federal law, the Health Systems Agency has among its functions the elaboration of plans based on the information and analysis of the Puerto Rican realities. In those plans we should outline objectives, goals and priorities which will come forth from the analysis done about the local problems. In other words, the objectives and priorities will be established based on reality. The process incorporates the perspectives of the problems and solutions of the community that will be offered by the Board, Committees, Sub-Area councils and the Community in general.

We have found a lack of research needed for the elaboration and analysis of the Health Systems Plan (HSP). We have found many gaps due to the lack of studies that present the existing interrelations among the socio-economic variables, the health conditions and the delivery of health services. As a result of this effort, we hope to be able to point out specific areas in which research might be required as a part of our planning system.

In terms of evaluation, the law gives us the authority to evaluate all the proposals that request funds in the health field, whether for recommendation or approval. However this evaluation shall be carried out taking into consideration primarily the plans previously mentioned. This means that we have to channel the funds properly for the achievement of the objectives and priorities established. But the evaluation to be done should not only cover the proposals, but also the evaluation of institutionalized services and of the programs and projects which have been offered funds through the Area Health Services Development Funds. Although these last evaluations do not cover all of the services, programs, and projects, they shall

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* Commentary to Dr. José J. Villamil's Paper.

** *Executive Director, Desarrollo de Reeursos de Salud, Inc. Hato Rey, Puerto Rico:*

provide recommendations which could be generalized into other similar programs or projects.

The planning process is not limited to the elaboration of plans and evaluation, but also to the feasibility of the action. To that effect the Agency has created within its structure the instruments to promote and facilitate action directed towards the fulfillment of the outlined objectives. Those instruments are the Division of Education and the Section of Program Development which is part of the Division of Planning. Operating at different levels, both have the purpose of getting the involvement of the community in the solution of its own problems.

Part of the work that is being done through the Information Section is one of the research mechanisms. In many instances we have gone to the primary sources of information, which places us in one of the phases of research which is later complemented by the processing and analysis of data. Actually we have very valuable information which we hope in the immediate future to be able to share with other interested entities (agencies, community groups, universities). However Public Law 93–641 limits research by the Health Systems Agencies, although it specifically requires the Agency to point out research areas.

We have described the focus of the task being performed by the Health Systems Agency in Puerto Rico. This task is being affected by the lack of research and this could be generalized to the remaining entities. That is why we are in agreement that it is urgent to develop this vital area, independently of where it might be located.

However, we have the following concerns with respect to the recommendation to create a Council on Health Services Research:

—Who is going to establish the priorities of the researchable issues?
—What representation is the public sector going to have? Since it is the main provider of health services it will also be the most affected in this determination of priorities.
—What is going to be the composition of this council? This council could become inoperative if the members are not properly selected.
—How are activities going to be financed? Due to limitations on state funds it becomes impossible to disassociate ourselves from the Federal funds which could affect the research priorities. All funds that are actually assigned to research in the public sector, although minimum, could be transfered to the council.
—How is the quality of research going to be controlled if research is delegated?
—What authority is this council going to have for the implementation of recommendations resulting from research activities?
—How are the interested entities going to nourish themselves from the results found?

Recommendations

—A mechanism for the development of the area of research should be formulated since it is definitely a priority.
—The Health System Agency should be considered as an active participant of such a mechanism not only in the planning stage but also in the operational stage.
—The Health System Plan should be taken as a reference to determine the specific areas of research.

A Strategy for Health Services Research in Puerto Rico*

by Raúl Muñoz**

I am tempted to say that there has been so much said about the issues in question, and so well said, that there is no need for further discussion. Nevertheless, I will offer a number of comments. Although at present I am retired from government and belong to a non-profit consulting firm which does mostly research, evaluation, and planning studies with both private and public agencies in Puerto Rico, I cannot erase 35 years of public service. My comments on Villamil's paper will be both from the point of view of an independent researcher and from the point of a former government researcher. Villamil broadly specified what is needed for research in Puerto Rico, what he calls a strategy for research development, and the five main elements of this strategy for research. He elaborated on what is needed for research in terms of issues for research. I do not think we have any problem with the issues for research in Puerto Rico that have been so well documented during these two days of active discussion by the participants. The second item that he elaborated on is manpower.

Do we have in Puerto Rico manpower needed for a well-developed approach to health services research? He proposed an English model for the conduct of health services research. He made suggestions as to how this approach could be funded, and he described specific approach to what I call leadership or motivation for health services research in Puerto Rico. With your permission I am going to proceed to use Villamil's presentation as a basis to present my own perceptions of the situation.

We begin to develop a health services research program in Puerto Rico by singling out four main issue areas that can be very easily identified: morbidity, health care, manpower, and financing. Next, in the matter of research in Puerto Rico the presentations here this morning and the written materials are abundant in the matter of perceptions of problems and needs. Perceived and non-perceived problems is a more subtle angle of research, including health services research and sociological research. As an example of non-perceived problems, Dr. Nuñez López mentioned yesterday the matter of mental health research. Back in 1963, Dr. Jack Elinson brought to me an idea that he got from his contacts in the states and from an article in the New York Sunday Times (it was about health and happiness) when nobody particularly cared about research on happiness. Happiness was not then perceived as a particular item for research. But we were then developing the Master Sample Survey and we decided that as a special survey we wanted to look into the happiness issue.

The organization for the Master Sample Survey, and this touches a little bit on setting and leadership, was such that Dr. Arbona, who was then Secretary of Health, suggested, and we gladly incorporated, the organization of an advisory council on substantive issues to be researched. This council was composed of the program heads of the Department of Health and by departmental heads of the School of Public Health of the Medical Science Campus. They had the authority to establish priorities for research issues. The idea was that when you develop research in a setting which is not accustomed to research, but geared to services and teaching, you have to mix with and involve the key persons dealing with the subject in the application of one particular opportunity that used the research approach. So we organized this committee to select the issues and give priorities to them. Among the issues that were given priority was mental health. At the request of Dr. Juan Roselló, former chief of the mental health program, we dedicated two special surveys. The Master Sample Survey has a two-part approach to research in Puerto Rico: regularly it collects data on incidence of illness and medical care received and some related psycho-social aspects. In addition, every quarter we used to do a special survey on one particular aspect of health research in Puerto Rico which was a special approach to that particular problem. So, Dr. Roselló got his priorities and he got the first. No, I correct myself; Dr. Arbona got

* Commentary of Dr. José J. Villamil's Paper.

** *Consultant, Health and Social Service, Inc., Hato Rey, Puerto Rico.*

the first one. We had the dengue epidemic at the time and Dr. Arbona insisted that we find out about the beliefs, attitudes, and the practices of the people in Puerto Rico about dengue.

So the first survey was dedicated to dengue because the head of the Department had a policy issue on his hands. He had to develop what to do about the dengue epidemic in Puerto Rico. He got the first priority and Dr. Roselló came in as the second priority because of the consensus among the members of the advisory council and because of the fact that he wanted to approach mental health in a different way not only in terms of the needs; he wanted to know the unmet needs in mental health. That's where we introduced Jack Elinson's idea of the happiness survey with Bradburn's Index of Psychological Well-Being and the Symptoms Survey of the Mid-Manhattan Study in a beautiful approach to measurement of non-perceived mental illness in Puerto Rico.

This is as an illustration of the uses of research to answer issues and questions; and at the same time as an illustration of how you can develop leadership, both administrative leadership and involvement on the part of consumers of research which enhance the probability that the research will be utilized by getting the participants involved from the very beginning in the preparation of the schedule. I mean the program of activities of the Master Sample Survey in this case.

Now let's turn to another type of issue in the area of felt problems and un-felt problems. Incidentally, during the past two days we have had beautiful examples of problems felt at the professional and the university level which are probably non-felt at the average citizen level. In a highly authoritarian society like Puerto Rico we have to be very careful in the selection of issues for research because of the tendency to let the intellectuals, the elite that is gathered here, decide what is to be researched and what is not to be researched. It takes deliberate objectivity of approach to research to become aware of problems which are not felt at this elite level and to become a little bit more skeptical about problems that we do feel at this level. As an example I can give you what I call the myth of the public-private division of medical services in Puerto Rico which in my opinion is being negated by the increasing congruence in the perception of what is available and what is needed in the health services in Puerto Rico by the average citizen, by the providers and by the students of health services.

The third item at issue has been approached quite decisively by Dr. Haggerty: evaluation. There is an increase in evaluation activity in all sectors of public policy in Puerto Rico, not only in the health sector but also in the education sector, in the social services sector; and there is an increase in the quality of evaluation. I do not mean to say that we have achieved the basic methodological requirements that Dr. Haggerty so well presented this morning, but at least we are progressing toward that end and that gives us a beautiful opportunity to relate evaluation research to policy development. As mentioned yesterday, it is almost impossible to do even a small piece of evaluative research which does not immediately or later reflect on administrative policy to start with. But administrative policy in any department is only one particular aspect of overall departmental and government policy. So this is another beautiful opportunity that we have for influencing public policy even though we start moderately and modestly at applied and microlevels of evaluative research. In order to do that, we have to increase our methodological sophistication for doing that kind of evaluative research and we have to increase the sensibility and the involvement of the operational people as Dr. Haggerty so well presented yesterday in the specifications of the research basis of his operation. And that's not an easy task.

My experience with program directors is that most of them are missionaries. They have a dedicated and great belief that the program they are proposing is the right thing to do. Now, I have no quarrel with these missionaries. I think that we need missionaries. We need to temper the enthusiasm and the conviction of the missionary with the so-called objective or 'cold' approach of the researcher. Without having the researcher get contaminated by the missionary, contaminate the missionary with the researcher. So that's another fine opportunity for us in Puerto Rico to do evaluative research; to help the program directors to develop and extend their ability to formulate program objectives, program goals, and measurable objectives; and relate them to operational aspects of their programs and be able to relate output to input and relate it back to public policy and operational policy.

There is one type of research which I think Dr. Villamil did not specifically mention, but Dr. Arbona touched upon it. I call it anticipatory research. Dr. Arbona's approach was a very good example, and still is, of anticipatory research. At one time he wanted to change the policy of having one medical center in every small or intermediate town in Puerto Rico but he knew that there was a political investment in those medical centers by the mayors, by the municipal assembly, and by the constituents of the local town in that they all had a medical center in their town, a public health center. So he asked me to do a piece of research on the matter. I went out to the neighboring small municipalities of the metropolitan area and interviewed every mayor; and I came back with the results. Dr. Arbona, I said, we have the most positive approach. Your idea of having one small and in-

adequate center in every town substituted for by having a bigger center which should offer primary and secondary services for two or three or four different municipalities is acceptable to everybody; every mayor is in favor of your idea. The only qualification is that every mayor wants it in his municipality. At least Dr. Arbona got some information for policy-making; he knew that the idea was acceptable, the only problem was how to convince the mayors to accept a location which was not in their municipality. So even when it might seem negative in the anticipatory research we may still obtain a positive result.

One of the basic problems in developing a strategy for research in Puerto Rico was approached by Villamil in terms of manpower. Sometimè we are a little overly optimistic and say there is a lot of research being done in Puerto Rico. I don't know if I would call what we have been doing in Puerto Rico in health research and social research as "much research." I would qualify that statement. There is not enough good research being done in Puerto Rico. There is a terrific gap in ongoing research that is not adequate and up to the methodological and conceptual sophistication that it ought to have. In my opinion, the reason for that situation is that we lack the manpower for doing high-level research in Puerto Rico. We do not lack the manpower for doing low-level or middle level research. I am not an example of high level research but I always had the opportunity of getting United States' counterparts who were well qualified to do the research in Puerto Rico. Jack Elinson helped me in that respect. The only thing about the issue is that you have to be careful with the researchers. I have no quarrel with outside researchers. The only thing I ask is that they don't bring pre-conceived ideas of what is needed for doing research in Puerto Rico and that they don't start to do research in Puerto Rico without first getting acquainted with the local situation. We have been slow in preparing high level researchers in Puerto Rico. I do think we are a little better off but not so well off in social science research. As Dr. Pacheco and Dr. Pedro Vale say, both things are integrated and interdisciplinary research is the need in health services research. But unfortunately, the very few researchers that we have in Puerto Rico are mostly committed to their own particular fields and entities and it is very difficult to get them to join in the kind of model that Villamil presented from England unless we develop some kind of special motivation to get them to join. Therefore, we need two things: more and better equipped researchers and special motivation to get them involved in health services research. The glamour in research in Puerto Rico is allocated to social sciences, by the way; Dr. Pedro Vale and Dr. Pacheco are good examples of that.

Now on the matter of funding, I believe that there is no problem of funding research in Puerto Rico. We can always prepare proposals to the foundations and Federal agencies, but I think it was said by someone yesterday that if we just set aside one half of one percent of every appropriation for operational programs in Puerto Rico, we would have enough to start a good base of research especially in the two bigger departments: the Department of Education and the Department of Health.

The trouble is that before we get adequate funding in Puerto Rico we need to convince the people that have the decision power in appropriating government monies of the possibilities of health research. I can point to my experience in the Research Office of the Department of Health. I was located at the Medical Sciences Campus at the School of Public Health but most of my main funding came from the Department of Health and we allowed our research programs sufficient autonomy so that the program directors would not feel threatened in their endeavours. As I remember, we had Dr. Howard Stanton directing the Social Science Program. We had Dr. Edward Suchman directing the State Insurance Fund Studies. We had the Master Sample Survey. We had Angeles Cebollero and Judith Danielson directing the Health Education Surveys and all those people were highly motivated and achieving a level of research activity in Puerto Rico which unfortunately and for some reason which I cannot explain subsided after some time. I think I might suggest that part of the reason was the fact that both Dr. Arbona, and Dr. Nine later on, abandoned the directorial positions in the Department and the School and other policy was instituted by the subsequent Secretary which segregated the Research Unit from the School of Public Health. I myself was a little tired by the time so I felt that I couldn't go on fighting for research. To summarize, I would suggest that even in this final session on the research strategy we have the elements of what Villamil suggested for the possibility of developing a research setting which has authority, which is interdisciplinary, and which is related to the University and to the operational programs in the law that is being administrated by the Health Systems Agency (which has the funding, the power and the Federal regulations) and which could become the initial nucleus for the Health Services Research Center in Puerto Rico.

Summary of Open Discussion Following the Presentations of Dr. Villamil, Dr. Miranda, Mrs. Perez and Mr. Munoz

The discussion centered mainly on ways of organizing and developing the health services research area in Puerto Rico. In addition, several ideas for research areas were mentioned as worthwhile studying.

In relation to ways of organizing and developing the health services research area, it was suggested that the Medical Sciences Campus of the University of Puerto Rico would be the most appropriate setting for this kind of research and that the Medical Campus should involve the Department of Health in setting research priorities. One of the participants expressed concern about linking such a research effort with a particular school (i.e., the Public Health School) within the Medical Sciences Campus. It was suggested as an alternative that such a research unit should be composed of representatives of different schools and departments and that such a unit should respond directly to the Chancellor of the Medical Science Campus.

The lack of manpower was mentioned as one of the basic problems for the developing of health services research in Puerto Rico. The need for researchers in this area and the need to attract personnel to this area of research was pointed out.

The need to create an inventory of previous, as well as on-going research in the health services area was mentioned as a first step in moving toward a health services research center or research unit. The responsibility of creating such an inventory should be given to the School of Public Health working with an advisory committee of different health related agencies on the Island. In addition, it was suggested that this committee could explore how to coordinate on-going research on the Island.

The need to involve the potential users of research in the development of research was stressed by several participants.

The need for research in the areas of perceived and non-perceived health needs was also pinpointed. The Master Sample Survey was mentioned as a useful mechanism for fulfilling this need and examples of special studies done in the past were offered.

Finally, the need for more evaluation research as a way of increasing the impact of research on policy was also mentioned.

A Proposed Agenda in Health Services Research for the Commonwealth of Puerto Rico

by Jack Elinson*

I did not come to the Conference with a prepared statement. I wanted to "hang-loose," as young people say, and let the Conference influence and shape what should be said at the last session this morning. The Conference has accomplished that, as you are about to hear.

I did not come with a completely open mind. After all, I have been working with health professionals (some of whom are in this room) on one problem or another in Puerto Rico for nearly twenty years, and occasionally teaching evaluation research at the School of Public Health. For about 25 years I have been doing health services research and teaching about health services research, although it wasn't always called that. A completely open mind, like my philosophy professor once said, is like an empty stomach - there's nothing in it. You will not be at all surprised, then, to learn that I had some things in mind before I came to this Conference.

What I should like to do this morning is to play back to you some of the things I thought I heard over the past two days. The play-back will necessarily be like a distorted tape making some things sound more important than the way they were said; some things will sound less important; and some things will not be heard at all. If anyone seriously wants to hear again exactly what was said, all she has to do is re-play the bilingual tape, which I understand is being kept intact by Dr. Saldaña-a rather dangerous thing to do, as some high level administrators have found out in the recent past.

The Conference so far has considered the following questions:

- What are some of the main health services issues in Puerto Rico that currently command attention?
- What criteria might be used to select issues for research on health services?
- How has health services research been organized in some of the main centers in the U.S.?
- What are alternative strategies for organizing for health services research in Puerto Rico?

I should like to add three questions for your consideration:

1. How can Puerto Rico make maximal use of existing resources with minimal new sources of support?
2. What conditions in Puerto Rico seem to make for success in health services research and what factors appear to be obstacles?
3. How will one know whether the health services research program in Puerto Rico is successful (in the short run, and in the long run)? (The last, you will recognize, is a kind of evaluation question).

Let me first review some health services policy issues in Puerto Rico that demand attention, mostly mentioned by Dr. Fernández:[1]

1. The impact of federal legislation on the Puerto Rican system of health care.

   It was only yesterday, twenty years ago, when the Puerto Rico Health Department and Columbia University School of Public Health joined forces to examine medical and hospital care in Puerto Rico. I almost said "system." The word system wasn't used then as it is now. We didn't realize how simple life was. Dr. Arbona and Dr. John Grant took us to Governor Luis Muñoz Marín, we made our pitch, he said go ahead, and we went to work. It was probably more complicated than that, but it seems so simple now.

   Since then, Federal laws, Medicare, Medicaid came with whatever benefits, and these, it is alleged, contributed to the deterioration of what promised to become a model of regionalization of health care in the public sector.

   Today we have still another Federal law, Public Law 93-641. What will it do to the authority of the Puerto Rican Health Department and to the overall Planning Board of which Puerto Rico has been so proud? Not to mention Puerto Rico Public Law 11[2] with

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[1] F1–F14 refer to issues raised by Dr. Fernandez in his opening statement.

[2] Puerto Rico Public Law 11, enacted May 1976, known as "Ley de Reforma Integral de Los Servicios de Salud de Puerto Rico" provided for the creation of a general health council to determine public policy in health.

which the Secretary of Health is wrestling at this very moment. There is a real organizational and legal mess here—a delight to students of organizational interrelationships, sociologists, political scientists, and lawyers. This subject alone could occupy health service researchers for quite a while if they were interested in that sort of thing. Prof. George Silver of Yale University has had a team of social scientists and medical care administrators studying the impact of one Federal law about child health in Connecticut for three years now.

2. The capability of the Puerto Rican system to meet the increasing demand for medical care.
3. The inadequacy of health services for the poor.
4. The relative efficiency of health services in private and public sectors.
5. The participation of consumers in health services planning.
6. Growing costs.
7. Inequities in availability of health service and quality.
8. The lack of understanding by politicians of health services issues.
9. The limitations of piecemeal solutions, e.g., public health education, in the absence of a comprehensive policy.
10. Priorities in health services among competing interests at different levels of government and between consumer and provider.
11. The frustration of health services administrators in the face of increased participation; conflicts between professional planners and public representatives.
12. Priority setting with limited resources.
13. The clash between the public and private sectors.
14. The degree of control or lack of control in the public and private sectors.

It is useful and necessary to pose these policy issues as Dr. Fernandez has done in order to provide a framework for thinking about and doing research in health services in Puerto Rico. One ought to know which issues one is addressing through health services research.

Having said this, I must next say that any one of these issues may well occupy a diligent health services researcher for a number of years, or forever, as Dr. Fernández himself indicated. The Secretary of Health, Dr. Rivera Dueño, mentioned priorities for mental health, environmental health and primary care. These content areas can be crossed against the important health issues cited by Dr. Fernández. For example the public-private issue can be looked at in the area of primary care.

Dr. Mechanic cited the criteria suggested by NCHSR for choosing researchable questions. I won't repeat them here, though they bear repeating. This list is short; paste it on your medicine cabinet mirror. One criterion is: "Will the research suggest policy options that will have significant impact?" Dr. Mechanic cautioned, nevertheless, that "what may seem irrelevant to policy at some earlier point may turn out to be crucial a few years later." The Densen-Shapiro HIP studies are a case in point. Others can be cited. For example, a nationwide sample survey of the health of older people by Ethel Shanas (of the National Opinion Research Center, U. of Chicago, a foundation supported study, before the birth of National Center for Health Services Research) in the 1950's resulted in bedrock data considered by those who subsequently framed the legislation for Medicare. These studies were *not* requested to be conducted by mission-oriented agencies, but were of interest and seemed important to researchers and their foundation supporters. Not all studies with such origins pay off so handsomely, as we know. Why did these? I am not sure we can say. The researchers knew their stuff, they were steeped in the subject matter, they were excellent technicians, they published their results, making them widely available, and they were lucky.

As for the macro-micro issue: some people are attracted to the one world and some to the other. I belong to the school which feels that what counts eventually is what researchers do when they conceptualize and operationalize a specific health services research problem. There are tastes and preferences in research as there are in women or men.

I should like to turn to some ideas for first steps for health services research in Puerto Rico. We could have a brain-storming session in which ideas are set out as they occur to us, as they do on Madison Avenue, and perhaps that's what will happen in the discussion that follows.

Here then are some modest proposals for health services research activities that can be done relatively inexpensively and relatively quickly: It would be helpful to think of them as *first steps* toward the development of health services research in Puerto Rico.

1. Make an inventory of all health services research in Puerto Rico in the past 25 years and classify it for relevance to health services policy issues.
2. Create and maintain a health services research results office. The results of research should be available along with documentation to permit other researchers to evaluate the quality of the work.
3. Supplement the analysis and reporting staff of the Puerto Rican Health Department's on-going Master Sample Survey. The Master Sample Survey represents an enormous investment in health services research data

covering the entire population of Puerto Rico on a sampling basis—first as a demonstration project funded by the Federal government for the first three years or so, and for the past ten years as a regular budget of the Puerto Rican Department. *This is the only Health Systems Agency area* I believe, under U.S. Public Law 93-641, that has a capacity for continuous, systematic, quantitative population health status and health care utilization measurement. Relative to the current cost of its maintenance, sampling, data collection, and data processing, a small infusion of funds could make this Survey pay off handsomely. This is the basic "rice and beans" (arroz con habichuelas) research that Dr. Nuñez was talking about yesterday.

4. The Master Sample Survey is not only under-analysed and under-reported by the Health Department, but it is also underutilized by the Faculty of Bio-Social Sciences and by the Medical Sciences Campus generally. A liaison could be established between the Faculty of the Medical Sciences Campus and the Health Department such that questions of research to both faculty and the Health Department can be injected into the Master Sample Survey on a periodic basis. Indeed, some Public Health faculty are already regular users of the Master Sample Survey (Dr. Vázquez in the social demography, for example). Those faculty concerned with health services need to be inspired and taught how to use the Master Sample Survey. The liason person could serve this function.

5. Create incentives for faculty for engaging in health services research by reduction of teaching obligations, or by additonal compensation, or both. If the Medical Sciences Campus and other parts of the University of Puerto Rico are seriously interested in health services research, the University should be prepared to make some investment in faculty time for the preparation of research grant applications to sources of funding, such as to the National Center for Health Services Research and to foundations with concern for this areas.

6. Start with relatively discrete pieces of policy relevant health services research, as Dr. Arbona suggested. A good example is Dr. Luis Miranda's work in Loiza with different results in a different setting from the results obtained by Dr. Haggerty in Boston and Rochester. A strategy recommended by Dr. Mechanic, Dr. Haggerty and others is capitalizing on ongoing information systems organized for administrative purposes by asking pertinent (and sometimes impertinent) research questions.

7. Mr. Norat asked what is the first step in research. The first step in research is to have an idea for research—to ask a researchable question. A researchable question is one that can be answered by research. Anyone can ask questions, the trick in research is to ask them in a way that can be answered. The first step is *not* to create a "Center" or "Institute" for Health Services Research. Centers for Health Services Research are most likely to be created where there already exists a critical mass of health services researchers who have had researchable ideas, and who have done and are doing health services research. Where do the researchable ideas come from? From different places. From a researcher who is interested in a problem and sees an opportunity for tackling that problem. We have the notable examples cited by Paul Densen and Sam Shapiro of their work at HIP on the effect of group practice on hospitalized surgery rates and on perinatal mortality. Researchable questions can come from a mission-oriented government agency or foundation that has money and seeks a health services researcher to work on a given problem.

8. The setting for research has a bearing on whether the research should be immediately policy relevant or more long range and anticipatory. University settings are not the best places to do research that is immediately policy relevant. Independent research institutes, non-profit or for profit, seem to be more flexible, can move faster, as in response to RFP's and, in the experience of government agencies, are more likely to meet deadlines. Perhaps one of the best settings for policy relevant research making use of available data is the Congressional Budget Office which has 200 economists and other analysts analyzing potential implications of Federal legislation. No university is equipped to be so immediately policy relevant.

9. Another idea, among possible first steps, is, for purposes of mutual interest and benefit, for the University of Puerto Rico Medical Sciences Campus or the Health Department or the Health Systems Agency or the new Health Council under Public Law 11 or any other relevant Puerto Rican organization to join hands with one or more of the U.S. university health services research centers already in existence, such as those we heard from (and there are some others), sponsored by the National Center for Health

Services Research. I know how difficult it is to get two universities to work together, or any two autonomous organizations, but I do believe it is possible to transcend these organizational difficulties where there are superordinate goals and clever and agreeable personalities. We have heard about and seen some at this Conference.

10. Organize regular or periodic meetings with legislators and other policy makers where health services researchers share and explain their research results.

For the future Puerto Rico might well take up Dr. Villamil's recommendation imported from Britain of a Health Research Coucil. (There was one in New York City which lasted about ten years or so, and then ran out of money!) New York City had an interesting funding principle for the Health Research Council suggested by the then Commissioner of Health, Dr. Leona Baumgartner, - one dollar per person per year or nearly $8,000,000 a year. A similar principle in Puerto Rico would yield $3,000,000 a year which wouldn't be bad as a start; and would support the notion of Dr. Villamil, Raúl Muñoz and others for Puerto Rico to generate its own funds. I strongly disagree however, with Dr. Villamil's proposed strategy of disassociating health services research from existing agencies. I would rather try to build bridges among the relevant agencies as difficult and as untidy as that may seem from a professional planner's viewpoint. The time is ripe now for such bridge building.

At present Puerto Rico does not have a cadre of researchers who have published their results in the professional and scientific literature. I think a crash program to create a center or institute of the type represented by Shapiro at Hopkins, Densen at Harvard, Lewis at UCLA and others around the country is unwise, impractical, and unlikely to be funded. A wiser course, I believe is for Puerto Rico to step up its efforts gradually to see that promising students are encouraged to pursue their studies in this area, to take advantage of experienced health services researchers who may have a year or two to stimulate health service research activity and to provide incentives for faculty particularly from the Bio-Social Sciences, but from other parts of the University as well, e.g., planning, to engage in health services research.

The most positive sign of a renaissance of health services research in Puerto Rico is the favorable climate being created by the Chancellor of the Medical Sciences Campus and the Dean of the Faculty of Bio-Social Sciences and Public Health and by the Secretary and Assistant Secretary of Health as evidenced by their participation in this Conference on Health Service Research. It has helped, of course, to have had this Conference sponsored by the National Center for Health Services Research and attended by other relevant sectors of DHEW as well as by representatives of two of the leading private foundations in the health field.

I would hope that the faculty of the Bio-Social Sciences at the University of Puerto Rico who have attended this Conference will be sensitized to the opportunities for health services research.

Somehow we have to overcome both the pleasures of talking about research and the pain of doing it.

A Proposed Agenda in Health Services Research for the Commonwealth of Puerto Rico*

by Jaime Rivera Dueño**

I have been asked to react to something I am hearing for the first time. I was absent for the past two days, so it is not easy to put my thoughts in the context of what has been discussed here. Nevertheless I will offer a number of reactions.

In the first place I would point out that I am not now a researcher, as you obviously know, nor have I ever been a researcher as such. I want to make it clear, however, that that does not mean that I have anything against researchers. I would also point out that I have to be very practical in what I have to do because of the nature of my current position and those I have held in the past. I have to find solutions to problems fast. Sometimes I do not have the time to consider long term solutions because the pressure for solving problems is so intense that I have to move immediately.

I would like to mention something that I am sure that you all know, but I want to stress it. There is a big difference between Puerto Rico and the United States of America in terms of health. In the United States there is a system that is pluralistic in nature. Here in Puerto Rico we have a more monolithic system in terms of the dominant role of the Government. In Puerto Rico the government provides care for 60 to 70 % of the population, because of medical indigency. In the United States the comparable figure is on the order of 20 per cent. Another difference is the fact that in the States the system is pluralistic in nature without any real formal organization. I realize that in the last decade there has been movement towards a system. Here in Puerto Rico we do have a system; which is referred to as the Regionalization System. It may be good and it may be bad. I do not know how you people from the United States would evaluate us. For us in Puerto Rico, in my opinion, I think it has been very good. We have to continue it, to bring it to a high level of achievement. It has been at a plateau for several years, and now it must be further advanced.

Another problem relates to obvious cultural differences. Our socio-cultural problems are different from those in the States. This must be taken into consideration when we are dealing with health, especially mental health. The problems of mental health in Puerto Rico obviously reflect our socio-cultural characteristics. If we compare our mental health problems with those of the United States, we must also consider the socio-cultural differences that exist. Our mental health problems must be addressed by Puerto Rican solutions. Mental health is not like physical health where probably a particular syndrome, a particular disease in physical health, can be discerned no matter where you do the research to try to solve it. In mental health the problem happens to be different because of differences in background, and we have to take them into consideration.

Now, I could continue pointing out differences that ought to be kept in your mind as we proceed because they are very important. We are talking about research. If the research is to be meaningful and useful, we must continually keep those differences in mind.

We can go forward one more step and talk about the impact of Federal laws in Puerto Rico. Obviously Federal laws were enacted for the United States, but they also affect Puerto Rico. We try to apply them or benefit from them in Puerto Rico, but sometimes such efforts have been terribly disruptive to our system. This is important when one considers a law like P.L. 93–641. It makes a lot of sense when you try to understand it in the context of the United States; but when it comes to Puerto Rico, problems immediately arise. We have had a history of planning in Puerto Rico for many years, many of you have helped us in our efforts. This is different from the States where the history of planning in an organized fashion is more limited. I am talking of course, about health planning and obviously a law such as P.L. 93–641, causes disruption in the way we try to function here in Puerto Rico. I could think of several other laws that were also disruptive because they again are meant for a system that is different from ours. Let us examine Medicaid, for example. If you consider aspects of Medicaid such as free-choice of physicians, it is apparent that Federal legislation

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* Commentary to Dr. Jack Elinson's paper.

** Secretary of Health, Commonwealth of Puerto Rico.

has some impact on the way we function here in Puerto Rico.

I want also to mention another point. In the States, physicians in the private sector are very much concerned about legislation they perceive as being a step toward socialized medicine. In Puerto Rico my impression is that most of the so-called private physicians do work with the Government in one way or another, and most of them are very cognizant of the fact that we have a system in Puerto Rico. I do not think that in Puerto Rico we have such a fight between the private sector and the public sector. Last night I was at the Medical Association where I said that mental health is one of our main problems. They do not see me as one coming there to push them. We were trying to get together to see how we can combine forces. They are willing to do so because they really think that they belong to a system even though they are not in the system. We are trying to see how we can work out differences. A difference exists in the States. I am not saying that it does not exist here, but it is not of the magnitude that exist in the United States. As a good example, we have here at this Conference the elected president of the Medical Association. He is participating with us today, and I am sure that the Association wants to cooperate and the proceedings of this meeting and his contribution are going to help us.

Another problem here is participation of consumers in planning. Well, I am all for participation. Definitely. Now the question with respect to participation is a major issue. At what level are consumers going to be participating? In my opinion participation at the lowest level is always more effective than participation at the uppermost levels. My impression is that when we give the opportunity to consumers to participate at a very high level there are two tendencies: either the consumers are not truly consumers because most of them can pay for services on the outside and only appear as if they are consumers of public health services, or if they do bring real consumers on board, they immediately are surrounded by individuals who are experts and they do not become effective participants. What develops is immediate hostility between consumers and experts, and little is accomplished, and then only with difficulty. I consider participation at the lower levels to mean at the town levels, at the area levels, at the regional levels, that is where the action is. That is where the people that we are trying to reach know exactly what happens to them. They know exactly what they need to ask for. In participation at the higher levels most of them do not even know what is going on at the local barrio in any of these little towns. So I believe in participatiion at the lower level. I think that consumers at that level are able to see that progress can be made if they do participate in a proper way.

Let me turn now to the question of costs. There is no doubt that health services costs are rising. Certainly, some of this has to some extent been caused by Federal legislation. We are practicing defensive medicine in Puerto Rico to avoid so-called malpractice. There also is the fact of the poor utilization of our system, which is something that we have to solve as soon as possible. If we utilize the medical centers as they were supposed to be utilized, if we utilize our health centers for primary care as they were supposed to be utilized, and if we introduce good secondary care between primary and tertiary care, I am sure that we will make better use of the health dollar. This again is a question of organization. We have something here that we can get our hands on in trying to solve the particular problem of growing costs.

Another problem that was mentioned here was the lack of understanding on the part of the politicians. This comes up every time that I talk about health care issues. I am not saying that I blame the politician. I blame us, the health professionals. We are to be blamed if the politician does not understand. Most of the time we just follow them because we feel they are going to react to us. Politicians do not know about health. Even physicians who are politicians do not know about health. We the professionals in health are the ones that have to bring this forward to them. Now if we continue to be submissive to what they are trying to do and what they are trying to say, we will always have the politicians making decisions for us. You cannot blame them, that is their job. But if you are able to talk to them, if you are able to bring forward what health really is, I can assure you that practically all of them will understand. My personal experience here in Puerto Rico and even in the United States is that if you do talk with them, if you do present your problem, if you do present something in a very reasonable way, if you explain to them how much this will help them politically, they will understand. That is the simple language they understand and they will get off your back and let you work. I have personal experience with this approach and I tell you it works. The only thing is that you have to say it with confidence because if you yourself are not convinced how can you convince others? So everytime they blame the politicians I think it is really our fault and not their fault. We really have to start looking forward to change because if we don't do it, they will keep changing and probably establishing a system that will be worse in the long run.

Now, public health education. Here we go again. I call it a "crush" on education. Everything we solve is with education. Oh fine, that is the beautiful word that solves all the problems of the world. But what are we doing about education? Everytime

I go to a place and I try to get a reaction from groups, especially professional groups, immediately the first word is, we have to educate. OK. I just want one further step. What is the next step in education? Do not tell me "education" because I know that. Tell me what it is that you mean by education so that we can move into that particular area. Immediately it becomes a very sophisticated matter. It has to have so many things: objectives one, two and three, and so on and so forth, and by the time you try to put it into practice, down there where people are needing that education, it really doesn't mean a thing. We have to start looking at education in a pragmatic way. I am sorry to speak like this but I've been through this so often, that I really get a little discouraged about the way we, the professionals, are talking about education. We have to start coming up with answers, and do it in a very pragmatic and realistic way. As a Secretary of Health I have acute situations in need of decisions and I cannot keep on planning for 1990. I have to be doing something now and I believe that there are ways and means to deliver education in an immediate way.

Another problem is priority setting. This is one of the most crucial areas with which a Secretary or any one in a position like this has to deal. You have to make decisions and that's the most important thing. If you ask 200 different people, they will give you 200 different priorities. They reflect their personal interests, their professional interests, or their group interest. Priorities have to be set not on the basis of those considerations, but on the basis of realities and needs of the people, at least from the standpoint of the Secretary. Those priorities are very important because they will affect the allocation of government monies. There are multiple pressures in Government. Everybody wants to apply pressure on behalf of their favorite priority. Often you have to resist pressures in order that the real priority may be identified. The problem is that sometimes Secretaries respond to these pressures and they wind up with a list of priorities that they know ahead of time they cannot adequately address. This causes them to spread themselves so thin that they can have no impact whatsoever on any particular real priority. To me priority setting is being sure exactly what is needed in a community and trying to achieve it by being selective so that the ones that are really needed right now are the ones which receive concentrated attention.

Another problem here in Puerto Rico is that our people believe that the Government has to provide for everything. They expect that everything should be solved by the Government. The people should start looking out for their own health too.

Let me turn now to research as such. I said I am not a researcher, but I also said I am not against research. But I get nervous every time I talk about research or someone talks to me about research because the end product of that research is so far away that it really does not solve my problem. And that makes me nervous because I need action now. I understand that we have to engage in research on a long-term basis. I have nothing against that, I realize that it is very important. What I am trying to say is that we have to set priorities in research. A lot of research has been done in Puerto Rico. Where is it? Shelved. Practically nobody looks at it. Somehow those projects are just exercises in futility most of the time. Not because the content is not good but because somehow, somewhere it just gets put on a shelf. This is a very serious matter because I know that the people who have been involved in the research are talented, productive people. Perhaps one of the ways to move forward immediately is to see if we can get the dust off of those documents and see how we might immediately utilize the research that already has been done in Puerto Rico. This is one thing that I would suggest that the center immediately start working on; to take existing research studies off the shelves, look at them and try to see how we can utilize them. Such studies do exist; I've seen a couple of them that are very good.

For the longer run, we have to be selective in the substance of research, selecting projects according to our needs and priorities. I don't think that any of us would like to be involved in research just for the sake of doing research. We have to establish priorities as to where we are going to do research and try to make it useful.

Please let's try to do research which recognizes the idiosyncracies of Puerto Rico and her people. This is very important because we cannot introduce foreign ideas if they are not going to be adaptable to our people. I am not opposed to foreign ideas. I believe that a country does grow culturally with the infusion of different ideas from other countries. We have to tailor those ideas to reflect our idiosyncracies so that they become meaningful and useful. Otherwise they don't mean anything, and they don't make sense for what we are trying to do.

Finally, I would say that there is another type of research that I believe we have to do something about. It is what I call historical evaluation. Those who do the evaluation may not find any formal objectives to guide them, but much has actually been done because of the need to provide service. Many of these efforts have been successful, while others may have not. Even though there may be no written objectives and no typical way of doing things in planning and research, I believe that if we examine and evaluate things that exist or have been done in Puerto Rico we will get a lot of information on how not to do things, but also on how to continue doing them or improve them.

A Proposed Agenda in Health Services Research for the Commonwealth of Puerto Rico*

by Gerald Rosenthal**

I have heard and learned a lot in the last few days. I did not hear anything that one could disagree with significantly in Dr. Elinson's comments this morning. There are a number of things that I would like to call attention to this morning to share my reaction and response, and then I will address some additional issues.

There are two separate questions being addressed in this Conference which we have not worried too much about keeping separate. One is the issue about what research ought to be done. We spend a lot of time discussing what topics, what issues, what inquiries, should be undertaken. Underlying that is one assumption and one question! The assumption is that we ought to do *some*. I think we have to be clear about that. Implicit in a responsible discussion of what we ought to do research about is an assumption that we ought to do some research. The question in that is "How ought we to structure or organize that activity to increase the likelihood of productive, useful outcomes?" Jack alluded to some of those. I would like to address each of those questions separately because they are both important. They are issues that the National Center for Health Services Research started reexamining when the new enabling legislation (P.L. 93-353) was signed and when I came to NCHSR. We needed to think seriously about how you decide what you are going to do when you cannot do nearly as much as you know you would like to do. We involved a logic which has been alluded to in at least two languages here so it must, at least, be consistent with the views or prejudices that my colleagues in the room have. One is the notion that the *users* of research bear the responsibility for establishing the importance of the inquiry: It is important to say, because no one has said it, that all of those users are not policy-makers; they are providers of care; they are service deliverers; they are consumer groups. They can be lots of people; they are people that have concerns about the performance and operation of the health care delivery system who are not researchers. The burden falls on the *doers* of research to structure formally the way the questions are asked. We used to say that the important thing is to ask the right question. We discovered over the years, particularly in health care, that almost anybody that takes an hour to look at the health care delivery system can ask a lot of right questions. It does not take any great wisdom to run off a list of critical important issues. Why are they important? Because they are already compromising the performance and behavior of the system and therefore we need to respond to those realities. The trick of the researcher is in finding a way to ask the question; not "how to ask the right question" but "how to ask the question right." That is the skill, the responsibility, the perception; the integrity and the skepticism that the researcher brings to an issue that he or she does not necessarily have to establish.

Not all important issues are researchable. That is, there are lots of important issues the substance of which we understand. The criteria for what one wishes to do about it comes from values, personal sense, institutional, political, whatever, and will not be enhanced particularly by a more formal systematic inquiry into the nature of the problem. Other problems are crucial to our understanding of the system but may not be identified specifically in matters of great public discussion at the moment. The crude understanding of the things that influence a physician's choice of location, or medical student's choice of specialty, or an institution's choice of room configuration—to a lot of us researchers it is important, to the extent that things like that can be understood, to understand them. Not because a law has to be decided or a resource has to be allocated, but because it is a basic property of the system that is susceptible to inquiry and research which would be useful to understand. Long before we knew anything about such things as bacterial infections, people were still picking apart the human anatomy in an effort to understand why it worked and how it worked. It seemed to us at the time that the knowledge itself had a value.

*Commentary to Dr. Jack Elinson's paper.

**Director, National Center for Healtn Service Research.

Now the dichotomy we draw—that *users* establish the importance of an issue and the *doers* of research (researchers) establish those issues for which systematic inquiry is viable-requires the understanding of two other basic facts. One I alluded to; not all users are policy-makers. There are lots of important issues. If you go to England, where they operate the service delivery system, most of their health services research is research about how you run an office, how you schedule visits, how you allocate beds and supplies, etc. Those are operational questions that people who produce care are concerned about. While there has also been a lot of research on assessing the quality of care, almost all that research has been done in the United States. Why? Because, given that the U.S. system works with its diversity of structures it becomes more important to worry about differences in quality. So you are driven to inquiries that reflect the particular reality in your world. The researchers have always moved in that direction because that's where curiosity lies.

It is important, however, to remember a second fact. In the course of systematic inquiry, researchers often develop issues which become of more general interest. For example, it was only after research about the impact of peer assessment and review of performance had been developed that one could consider a policy for assuring quality of care by using peer review. It wasn't a strategy that could have been conceptualized. The problem was always important in principle, but in practice it had not had a lot of attention. Formal quality assurance efforts were developed out of the Joint Commission for Accreditation of Hospitals or the professional societies themselves. There was no public attempt to assure the quality of care beyond licensing which is essentially responsive to the manpower side rather than quality assurance.

There is a kind of circularity which we often try to avoid by saying that issues are short run or long run. In fact, a healthy system has a constant process of systematic inquiry, of challenging, evaluating, and verifying the changes that take place and arranging them in a way that people in the real world who operate the system can understand and use that knowledge. That is the function of research. Healthy systems have that research. That's how they rejuvenate and enhance themselves and even during the most stringent resource restrictive times some of that must go on.

The process of systematically reviewing what is happening in the system will often involve descriptive studies. For example, NCHSR funded a piece of research which was primarily a documentation of the health status of Spanish speaking individuals living in a community in the south. While the findings had no great impact in the world of knowledge, the study was important because it enabled us to improve the process for doing such analyses. It is the kind of inquiry that one would expect cities to want to do without calling it research. In fact they often don't, so we use research to show them how to do it and how it might be useful.

Another example of the role of research is found in recent studies to reexamine location and specialty choices of physicians. Eighteen or twenty years ago it was held that the location of medical students was a function of where they went to school. Medical students tended to practice near where they went to school. As experience begins to conflict with that notion, new research efforts are stimulated. We knew the answer to that question and never paid any attention to it. We would still be peddling that answer but it is so obvious that it isn't true that we have started doing some research and are discovering other influences of importance.

Often data acquisition in support of a particular project proves useful as a longer term activity. The Master Sample is a good example of that response; data demonstrated sufficient potential utility for collection to be institutionalized. Unique to Puerto Rico? No. The National Center for Health Services Research is funding and undertaking, with the assistance of the National Center for Health Statistics, the largest survey ever undertaken in the United States other than the Census: a prospective 12 month survey of 11,500 families to identify the sources of care, the nature of expenditures, the sources of funds for those expenditures and patterns of utilization. NCHSR initiated the study because current policy issues that we need to address require a level of detail of information which existing sources will not provide. While, many important analyses will be provided from these data, the most significant impact, in terms of non-researchers, will come from the first tables that display the basic data. This is because they tell people what's happening in a way that they are now unable to see. From the researcher's standpoint, that is where the kinds of analyses that will have an impact on policy begin, but a long time will pass before they are complete. Just putting the data out in the world makes a big impact and can change people's view of the importance of the overall research effort. Policy-makers and others can understand what those numbers mean and why they are useful. Their impact on policy may be instantaneous. I try very hard to make people understand that that, too, is research.

Systematically documenting what is happening in the system is tremendously important and represents a major starting point for a research effort. The research that you refer to, that exists all over the Island, is very much that kind of research. However, it has been, during this conference that things that were true at the time particular data were gathered aren't true by the time the data are

available for use. That makes Puerto Rico like all the other places I've been to. If you are going to use information where time is important then it is important to have better information.

Some general issues. First, I don't know whether the difference in expenditures for health care of sixty percent public and forty percent private, or 58 percent public and 42 percent private is a matter of great strategic consequence. However, the nature of the shift may be very important; who is moving from one to the other. So you may not care about general things, but documenting what is happening is a crucial task that needs to be done. Very often it is only done because some researcher says he wants to do a study. In fact the mere collection of data may be of value in itself.

A second item you addressed was the need for an inventory of existing research. At NCHSR, we face that issue all the time. We organize the research effort by methodologies, by disciplines, by area, by population studies, but the world does not look for answers in that form. They want to know what was learned about delivery of services in rural areas without caring whether it was economics research or sociological research or whether it was statistical or qualitative. We clearly need a way of synthesizing research findings around the issues. We try to do this at the National Center for Health Services Research. It is a major focus of staff effort. It is, however, extremely hard to do. The same piece of research may be relevant for many different inquiries and it ought to be available to each of them. Clearly the best way to do that is to have a few smart people who know what has been done. They know more than computers and they are cheaper to maintain, but you cannot lease them, you have to keep them forever. That is an argument for an institutionalized process.

A third thing that researchers should do is to produce other players in the health services system, like health officials and administrators of institutions, who are sensitive to research and data issues. Most researchers have a respect for empirical evidence. They are trained to ask if any kind of empirical evidence could improve the making of decisions. It seems to me that it is our responsibility as researchers to educate decision-makers to the value and the power of empirical evidence. It is my personal view at the moment that among policymakers there is a growing belief in the importance of more empirical evidence before making decisions. I hope that is true everywhere. Of course, that puts the burden on those of us who present the evidence to be competent. Researchers very often play a significant role in re-asking the question in a way that makes it amenable to inquiry. They may even change the nature of the discussion. An interesting example in the U.S. is the discussion around the use of deductibles and co-insurance mechanisms for financing health services. Researchers are still analyzing the reduction in total demand, if you make people pay a little more money. However, most of the people I know who are politically sensitive say that they don't believe that you can have a National Health Insurance Program that precludes people from buying other insurance. Such a restriction is not politically viable. There is no research that one can do before the fact but my guess is that probably they are right and that only very poor people would be impacted by the deductibles and co-insurance. At that point the policy question is whether you want to rely on a financing strategy that has the impact of making more inequitable the distribution. Researchers can contribute to such a discussion by sorting out what is really involved in that question. When we do that, we assist decision-makers in articulating and framing their own questions. My staff and my colleagues spend much time just talking to people in the decision-making world about things that they feel might be important and that is a very significant role for researchers. The availability is very important.

A last point is that most researchers do some formal teaching. That is, the reproduction of our kind. We test, we breed and propagate and that is a terribly important set of functions.

Now let me briefly talk about some other issues on which we ought to focus. Even though there are important functions to be done by researchers, how does one develop the effort? The development of health services research efforts throughout the United States and elsewhere in the world has a checkered and diverse history. There are some successful institutional settings and a long history of failures.

The university that I left to come to the Government had discussed for at least a decade an agreement with another university to jointly train graduate students in policy analysis.

The two schools are non-competitive; one is a school of public health, the other is a school of social welfare. They do not draw the same students, they do not compete for the same sources of funds. The agreement would not require significant resource commitment but it would be essentially new money. After ten years they still have not managed to agree whose program it ought to be. The point is that it is a common problem. The more institutionalization you look for, the more that effort will absorb all of the creative energy. So my inclination is always to stay away from new structure as much as possible. But you do need people doing research. And you need people to provide the stimulus and the leadership to do that. There are not a lot of well trained senior health services researchers anywhere. You probably have a disproportionate number of them in this room. The curtailment of the health services research training programs funded by the National Center

for Health Services Research has begun to effect the number of new younger researchers with proper health services research training.

By that, I do not mean economists who are willing to do analysis on health data. I mean health services researchers. I mean people who are trained in and sensitive to the reality of the institutions which produce and distribute medical care and who are able then to frame the research inquiry in a way that does not compromise the system to the research, but maximizes the power of the research to be relevant and useful to the system. That's what health services research is. There is not much of that competency around. I would say you need a training strategy as well as a research development strategy if you are serious about it. You have to incorporate the learning part with your strategy. You've got to be able to provide some of your own people and you have to build the collective commitment to the effort before you build an institution.

When I stopped being an economist doing a little research in health care and started to become a medical care researcher with training in economics, most of my colleagues thought that was going to be bad for my career. I was leaving the arena of publication and the arena of discussion where all my disciplinary successes were supposed to be generated. I believed that was true at the time, although I did it anyway because I would rather have a good problem than an easy one. You know, it was not really all that much trouble. By the time I came to the Government I was a tenured member of the economics faculty at a quality institution. Although almost all of my publications had been in journals for medical care, hospitals, etc., it didn't make a lot of difference. Times do change. The important social issues are the places where social scientists will make their careers. I believe health, education, social policy, generally, are really the compelling issues of the next generation and that competent, responsible, academically-focussed researchers should turn their efforts into inquiries on these problems. That will be where status and success lie. When I first looked at graduate school, every economics department had a professor of Money and Banking, and a professor of History of Economic Thought. That is no longer true. Today they typically have somebody specializing in Human Capital Assessment or Social Welfare Economics. Times change!

A last observation. It's clear that there are not a lot of senior researchers to go around. The issue that we face on the mainland can just be extended to the Island. Puerto Rico has been more fortunate, more successful I should say, than most under-researched places in the U.S. at capturing the interest of health services researchers and the commitment of those researchers to focusing on their problems.

Every health services researcher in this room is here because of a commitment evidenced by experience in addressing issues of health services organization and delivery on the island of Puerto Rico because it is important, it is interesting, and the potential for impactful research is significant. That has got to be facilitated in a systematic way. I don't know how you do that but we would certainly welcome at NCHSR participation of members of faculties from Puerto Rico. We do teach a lot about health services research in the normal course of our activities. If there were people at the Health Department that wanted to come and spend time at NCHSR and address these issues, we would welcome that kind of linkage. That's what the National Center for Health Services Research is there for. We do it. It is not that we are giving anything unique away. It seems to me the issue is to find other places where the learning is, where the sharing is, where the students are, and where the commitment is to make the most of what we have in a field in which there has been significant underinvestment. The problem that attracts the interest is the core of development and that should be the thing around which one builds. There are many important questions that you would like to address. All of them will be important and the choices are very hard to make. You should look for the one that captures the interest and the commitment and the stimulus. I look forward to the National Center for Health Services Research expanding and reinforcing its commitment to your effort here as elsewhere. We will do our best to make that a successful demonstration of the essential nature of research in a world that is committed to the delivery of quality health care services.

Summary of Open Discussion Following the Presentations of Dr. Elinson, Dr. Rivera Dueño and Dr. Rosenthal

The issues discussed during the last day of the conference focused on alternatives for the creation and organization of a health services research center in Puerto Rico and on the role of the Master Sample Survey in such research development.

In discussing the most appropriate setting for a health services research unit, one participant argued against its being located either in the Health Department or the University. The problems of locating this research unit in the Health Department was related to the Department's priorities—these are not research. The research efforts in the Health Department have been marginal and the underutilization of the Master Sample was offered as a case in point. The problems of locating such research in the University of Puerto Rico is academic and does not have a direct relationship to the formulation of policy. It was also argued that locating such research in the University will imply disassociating it from other health-related agencies. What is needed instead is a type of organization which will permit the integration of academic interest and other agencies dealing with health care.

The need to recognize the problems in developing a huge research organization were discussed, especially the problems of effort being devoted to the organization itself at the expense of its task. The need to stimulate research and to develop a structure that will support research in the health services research area was also stressed. This research area needs an interdisciplinary approach and if located in a university setting, it would be important for it not to be limited by the focus of particular disciplines.

Another participant stressed the need to have parallel developments which will promote research and at the same time will promote a structure for such research. The Medical Sciences Campus of the University of Puerto Rico was described as providing a special opportunity for the development of such a structure, since it works in direct contact with the community as well as with the Health Department. (This point was in disagreement with a previous one in terms of what could be the most appropriate setting for a Health Services Research Center). It was argued that the Medical Sciences Campus offers a special opportunity for collaboration, for solving the problems of how to make proper use of the outcomes of research, and for channelling and stimulating research activities with immediate or long range utility.

The creation of a unit for health services research was defended since there is a need to channel the research creativity. This unit should have its own identity and, at the same time, collaborate with other centers. It should start on a small scale with the purpose of growth.

This unit, it was argued, should integrate present research efforts within the Medical Campus and with various health related agencies, so that the results of research would be of broader use. The relationship with other agencies would be an important function of this unit. The relationship with other agencies could be instituted through a board of directors where these other agencies can be represented. This unit could also serve as a place to deposit results of ongoing and previous investigations so that an inventory of research can be maintained. This could be the first step of what, at a later point, can become a large institution.

The role of the Master Sample Survey in developing the health services research effort was another issue that received a lot of attention by the discussants. One of the participants tried to work out an agreement between the Health Department and the Medical Sciences Campus in terms of the utilization of the Master Sample Survey. The necessity of having some mechanism that would allow researchers from the Medical Sciences Campus to have input and access to the Master Sample Survey was stressed.

With respect to the research previously completed through the Master Sample Survey, it was noted that most of the people who had done that research had participation in both the University and the Health Department settings. Based on previous experience with the Master Sample Survey, one of the participants noted that the organizational location of the Master Sample Survey is related to its utilization, and that a possible way to

improve the latter would be to include in it people from the Health Department, the University and the Medical Association.

The Master Sample Survey was pointed out as a feasible mechanism to start developing the health service research area in Puerto Rico. It would allow for research to be done in different areas (i.e., patterns of utilization, satisfaction with care, alcoholism, drug addiction). The usefulness of the Master Sample Survey has not been fully appreciated and the Survey is therefore underutilized because people with questions do not know how to pose them so that they can be researched through the Master Sample Survey. One of the functions of a health services research unit is to translate such questions into researchable terms. A very important step in the development of health services research on the Island would be for someone to take the responsibility for working with the Health Department and other agencies so that existing questions and issues can be incorporated in the Master Sample Survey to obtain needed answers.

Another participant pointed out that the Master Sample Survey was originated primarily as an administrative instrument and not primarily as a research instrument. It was further suggested that in relation to the regionalization of health services, the Master Sample Survey should be enlarged so that its findings can be significant and useful for each health region.

Appendix
List of conference attendees

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Medical Sciences Campus
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University of Puerto Rico

TUESDAY EVENING-MARCH 29, 1977

2:30 P.M.
5:30 P.M. *REGISTRATION*
6:00 P.M. *RECEPTION*
7:30 P.M. *DINNER*

Presiding DR. JOSE M. SALDAÑA, *Dean Faculty of Biosocial Science and Graduate School of Public Health University of Puerto Rico*

Greetings Dr. JAIME RIVERA DUEÑO
Secretary of Health
Commonwealth of Puerto Rico

DR. GERALD ROSENTHAL
Director
National Center for Health Services Research

WEDNESDAY MORNING-MARCH 30, 1977

8:30 A.M.
Presiding DR. JACK ELINSON
Socio-Medical Sciences
School of Public Health
Columbia University

Presentation Health Services Policy Issues in Puerto Rico

DR. JORGE J. FERNANDEZ PABSON
Chancellor, Medical Sciences Campus
University of Puerto Rico

Presentation Policy Issues and Health Services Research: Priorities in Puerto Rico

DR. DAVID MECHANIC
Center for Medical Sociology and Health Services Research
University of Winsconsin

Discussant SENATOR MIGUEL HERNANDEZ AGOSTO
Senate Minority Leader
Senate of the Commonwealth of Puerto Rico

Open Discussion

12:00 P.M. *LUNCHEON*

WEDNESDAY AFTERNOON-MARCH 30, 1977

1:00 P.M.
Presiding DR. DAVID MECHANIC

Presentation Strategies for Organizing and Conducting Health Services Research

PROFESSOR SAM SHAPIRO, *Director*
Center for Health Services Research
Johns Hopkins University

DR. CHARLES LEWIS, *Director*
Center for the Health Services Research
University of California, Los Angeles

DR. PAUL DENSEN, *Director*
Center for Community Health and Medical Care
Harvard University

Open Discussion

THURSDAY MORNING-MARCH 31, 1977

8:30 A.M.
Presiding DR. JORGE J. FERNANDEZ PABON

Presentation Health Services Research: In General
Dr. Robert Haggerty, *Chairman*
Department of Health Services
Harvard School of Public Health

Presentation Health Services Research in Puerto Rico

DR. GUILLERMO ARBONA
School of Public Health
University of Puerto Rico

Discussant DR. ANGEL PACHECO MALDONADO
Graduate School of Psychology
University of Puerto Rico

Open Discussion

12:00 P.M. *LUNCHEON*

THURSDAY AFTERNOON-MARCH 31, 1977

1:00 P.M.
Presiding DR. JACK ELINSON

Presentation A Strategy for Health Services Research in Puerto Rico

DR. JOSE J. VILLAMIL
Graduate School of Planning
University of Puerto Rico

Reactors DR. LUIS A. MIRANDA
Assistant Secretary for Planning
Department of Health, Puerto Rico

ADA PEREZ DE CASTILLO, Esq.
Executive Director
Health Systems Agency for Puerto Rico

MR. PAUL MUÑOZ
Health and Social Studies, Inc.

Open Discussion
4:30 P.M. *ADJOURNMENT*

FRIDAY MORNING—APRIL 1, 1977

8:30 A.M.
Presiding DR. JOSE M. SALDAÑA

Presentation A Proposed Agenda in Health Services Research for the Commonwealth of Puerto Rico

DR. JACK ELINSON
Sociomedical Sciences
Columbia University

Reactors DR. JAIME RIVERA DUEÑO
Secretary of Health
Commonwealth of Puerto Rico

DR. GERALD ROSENTHAL
Director
National Center for
Health Services Research

Open Discussion

1:00 P.M. *ADJOURNMENT*

National Center for Health Services Research publications of interest to the health community are available on request to NCHSR, Office of Scientific and Technical Information, 3700 East-West Highway, Room 7-44, Hyattsville, MD 20782 (telephone: 301/436-8970). Mail request will be facilitated by enclosure of a self-adhesive mailing label. These publications also are available for sale through the National Technical Information Service (NTIS), Springfield, VA 22161 (telephone: 703/557-4650). PB and HRP numbers in parentheses are NTIS order numbers. Publications which are out of stock in NCHSR are indicated as available only from NTIS. Prices may be obtained from the NTIS order desk on request.

Research Digests

The *Research Digest Series* provides overviews of significant research supported by NCHSR. The series describes either ongoing or completed projects directed toward high priority health services problems. Issues are prepared by the principal investigators performing the research, in collaboration with NCHSR staff. Digests are intended for an interdisciplinary audience of health services planners, administrators, legislators, and others who make decisions on research applications.

(HRA) 76-3144 Evaluation of a Medical Information System in a Community Hospital (PB 268 353)

(HRA) 76-3145 Computer-Stored Ambulatory Record (COSTAR) (PB 268 342)

(HRA) 77-3160 Program Analysis of Physician Extender Algorithm Projects (PB 264 610, available NTIS only)

(HRA) 77-3161 Changes in the Costs of Treatment of Selected Illnesses, 1951-1964-1971 (HRP 0014598)

(HRA) 77-3163 Impact of State Certificate-of-Need Laws on Health Care Costs and Utilization (PB 264 352)

(HRA) 77-3164 An Evaluation of Physician Assistants in Diagnostic Radiology (PB 266 507, available NTIS only)

(HRA) 77-3166 Foreign Medical Graduates: A Comparative Study of State Licensure Policies (PB 265 233)

(HRA) 77-3171 Analysis of Physician Price and Output Decisions (PB 273 312)

(HRA) 77-3173 Nurse Practitioner and Physician Assistant Training and Deployment (PB 271 000, available NTIS only)

(HRA) 77-3177 Automation of the Problem-Oriented Medical Record

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(HRA) 77-3162 Recent Studies in Health Services Research, Vol. 1 (July 1974 through December 1976) (PB 266 460)

(HRA) 77-3176 Quality of Medical Care Assessment Using Outcome Measures (PB 279 198)

(HRA) 77-3183 Recent Studies in Health Services Research, Vol. II (CY 1976) (PB 279 198)

(HRA) 78-3193 Optimal Electrocardiography (PB 281 558)

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(HRA) 77-3158 Summary of Grants and Contracts, Active June 30, 1976

(HRA) 77-3167 Emergency Medical Services Systems Research Projects (Active as of June 30, 1976) (PB 264 407, available NTIS only)

(HRA) 77-3179 Research on the Priority Issues of the National Center for Health Services Research, Grants and Contracts Active on June 30, 1976

(HRA) 77-3194 Emergency Medical Services Systems Research Projects, 1977 (PB 273 893)

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HRA 77-3196 Conference Grant Information

HRA 77-3200 Grants for Dissertation Research Support

(PHS) 78-3206 Grants for Cost Containment Research for Health Planning

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16. Abstracts
Most Puerto Ricans receive medical care in government-owned and operated health centers and hospitals. The conference focused on the development of an agenda for health services research responsive to the concerns of those involved in health care delivery in Puerto Rico. The conference was attended by health services policymakers, providers, administrators and researchers from Puerto Rico and the United States. Participants discussed: (1) health services policy issues in Puerto Rico and how research might contribute to their resolution; (2) various strategies for organizing and conducting health services research; (3) the state of health services research in Puerto Rico; (4) a p th services research in the Commonwealth; and (5) a propose ices research in Puerto Rico with attention to its feasibi various interested parties.

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